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(54) **SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR A COLLABORATIVE DECISION PLATFORM**

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G06F 17/00 (2006.01)
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(58) **Field of Classification Search** 706/46
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,360,874	A	1/1968	Myers	434/198
3,444,521	A	5/1969	Breese	340/352
3,573,747	A	4/1971	Adams et al.	
3,581,072	A	5/1971	Nymeyer	235/152
3,601,808	A	8/1971	Vlack	
3,611,281	A	10/1971	Evanoff	340/23
3,611,314	A	10/1971	Pritchard, Jr. et al.	
3,616,944	A	11/1971	Field	214/16 B
3,634,669	A	1/1972	Soumas et al.	235/184
3,656,148	A	4/1972	Belcher et al.	340/324 A
3,688,276	A	8/1972	Quinn	
3,702,007	A	10/1972	Davis, II	444/1
3,710,948	A	1/1973	Sexton et al.	210/484
3,729,712	A	4/1973	Glassman	
3,757,037	A	9/1973	Bialek	178/66 A
3,779,244	A	12/1973	Weeks, Jr. et al.	
3,802,429	A	4/1974	Bird	
3,818,616	A	6/1974	Weber	35/74
3,824,375	A	7/1974	Gross et al.	235/617 B

(Continued)

FOREIGN PATENT DOCUMENTS

AU 0768052 11/2003

(Continued)

OTHER PUBLICATIONS

Vincent P. Barabba, Meeting of the Minds: Creating the Market-Based Enterprise (1995) (ISBN 0-87584-577-0).

(Continued)

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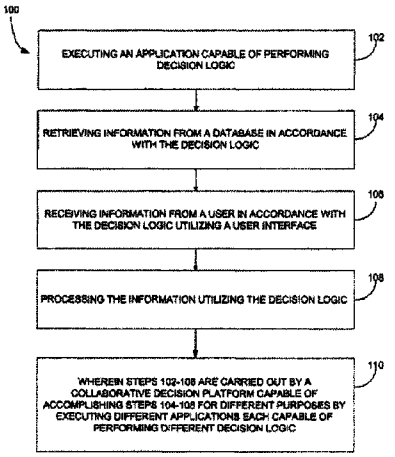
(57) **ABSTRACT**

A decision making system, method and computer program product are provided. Initially, a plurality of attributes is defined. Thereafter, first information regarding the attributes is received from a receiving business. Second information is then received regarding proposed products or services in terms of the attributes. Such second information is received from a supplying business. In use, a decision process is executed based on the first information and the second information.

760 Claims, 47 Drawing Sheets



U.S. PATENT DOCUMENTS

3,837,331	A	9/1974	Ross	128/1 C
3,848,235	A	11/1974	Lewis et al.	
3,850,161	A	11/1974	Liss	128/21 R
3,863,625	A	2/1975	Viglione et al.	128/21 B
3,874,095	A	4/1975	DeWaele	35/31 R
3,906,455	A	9/1975	Houston et al.	
3,944,723	A	3/1976	Fong	178/3
3,946,220	A	3/1976	Brobeck et al.	235/168
3,967,616	A	7/1976	Ross	128/1 C
3,993,046	A	11/1976	Fernandez et al.	128/21 B
4,007,362	A	2/1977	Sindermann	235/151
4,016,542	A	4/1977	Azure	
4,031,368	A	6/1977	Colding et al.	
4,043,562	A	8/1977	Shillington	273/164
4,081,607	A	3/1978	Vitols et al.	179/1 SB
4,107,467	A	8/1978	Johnson et al.	179/2 DP
4,118,788	A	10/1978	Roberts	364/900
4,133,034	A	1/1979	Etter	364/464
4,135,092	A	1/1979	Milly	250/343
4,149,246	A	4/1979	Goldman	364/200
4,181,948	A	1/1980	Jackson et al.	364/478
4,186,438	A	1/1980	Benson et al.	364/200
4,197,100	A	4/1980	Hausheer	55/382
4,230,031	A	10/1980	Pedroso et al.	98/115 LH
4,248,389	A	2/1981	Thompson et al.	
4,257,272	A	3/1981	Sloman	73/633
4,295,128	A	10/1981	Hashemian et al.	340/506
4,298,898	A	11/1981	Cardot	360/67
4,300,040	A	11/1981	Gould et al.	235/381
4,305,059	A	12/1981	Benton	
4,314,356	A	2/1982	Scarbrough	364/900
4,336,589	A	6/1982	Smith et al.	364/403
4,341,951	A	7/1982	Benton	235/379
4,346,442	A	8/1982	Musmanno	364/408
4,365,634	A	12/1982	Bare et al.	128/640
4,376,978	A	3/1983	Musmanno	364/408
4,377,741	A	3/1983	Brekka et al.	235/472
4,383,298	A	5/1983	Huff et al.	364/300
4,385,393	A	5/1983	Chaure et al.	375/30
4,393,584	A	7/1983	Bare et al.	29/877
4,396,985	A	8/1983	Ohara	364/405
4,412,287	A	10/1983	Braddock, III	364/408
4,429,387	A	1/1984	Kaminski	
4,435,769	A	3/1984	Nagano et al.	364/464
4,438,824	A	3/1984	Mueller-Schloer	
4,442,494	A	4/1984	Fromson et al.	364/511
4,445,171	A	4/1984	Neches	364/200
4,449,186	A	5/1984	Kelly et al.	364/407
4,452,358	A	6/1984	Simpson	206/366
4,454,944	A	6/1984	Shillington et al.	206/366
4,456,957	A	6/1984	Schieltz	364/200
4,459,663	A	7/1984	Dye	364/200
4,460,965	A	7/1984	Trehn et al.	364/464
4,464,718	A	8/1984	Dixon et al.	364/200
4,464,719	A	8/1984	Spellmann	364/300
4,471,348	A	9/1984	London et al.	340/722
4,478,783	A	10/1984	Broadwater	376/211
4,490,847	A	12/1984	Aleksander et al.	382/10
4,490,848	A	12/1984	Beall et al.	382/121
4,491,725	A	1/1985	Pritchard	235/375
4,491,947	A	1/1985	Frank	370/94
4,493,105	A	1/1985	Beall et al.	382/21
4,502,606	A	3/1985	Shillington et al.	215/274
4,509,123	A	4/1985	Vereen	364/300
4,516,016	A	5/1985	Kodron	235/472
4,522,211	A	6/1985	Bare et al.	128/640
4,530,067	A	7/1985	Dorr	364/900
4,537,576	A	8/1985	Thorsheim et al.	434/404
4,542,808	A	9/1985	Lloyd, Jr. et al.	186/56
4,547,851	A	10/1985	Kurland	364/401
4,547,858	A	10/1985	Horak	364/513
4,549,663	A	10/1985	Corbett, Jr. et al.	211/13
4,550,436	A	10/1985	Freeman et al.	382/34
4,551,719	A	11/1985	Carlin et al.	
4,553,222	A	11/1985	Kurland et al.	364/900
4,554,077	A	11/1985	Brown et al.	210/656
4,558,211	A	12/1985	Berstein	235/380
4,559,600	A	12/1985	Rao	364/474
4,566,464	A	1/1986	Piccone et al.	128/732
4,569,421	A	2/1986	Sandstedt	186/39
4,578,530	A	3/1986	Zeidler	
4,578,768	A	3/1986	Racine	364/560
4,579,053	A	4/1986	Beesley et al.	100/229 A
4,591,983	A	5/1986	Bennett et al.	364/403
4,598,376	A	7/1986	Burton et al.	364/470
4,600,112	A	7/1986	Shillington et al.	215/274
4,605,124	A	8/1986	Sandel et al.	206/223
4,614,861	A	9/1986	Pavlov et al.	235/380
4,635,136	A	1/1987	Ciampa et al.	358/342
4,635,189	A	1/1987	Kendall	364/200
4,636,622	A	1/1987	Clark	235/380
4,636,950	A	1/1987	Caswell et al.	364/403
4,642,296	A	2/1987	Hubner	436/138
4,642,767	A	2/1987	Lerner	364/406
4,642,768	A	2/1987	Roberts	364/408
4,648,037	A	3/1987	Valentino	364/408
4,651,279	A	3/1987	Suzuki	364/405
4,654,482	A	3/1987	DeAngelis	379/95
4,656,591	A	4/1987	Goldberg	364/478
4,658,245	A	4/1987	Dye et al.	340/683
4,658,370	A	4/1987	Erman et al.	364/513
4,667,292	A	5/1987	Mohlenbrock et al.	364/406
4,667,821	A	5/1987	Shillington	206/366
4,670,634	A	6/1987	Bridges et al.	
4,674,044	A	6/1987	Kalmus et al.	364/408
4,674,676	A	6/1987	Sandel et al.	229/142
4,677,552	A	6/1987	Sibley, Jr.	364/408
4,677,909	A	7/1987	Beesley et al.	100/229
4,688,178	A	8/1987	Connelly et al.	364/470
4,694,397	A	9/1987	Grant et al.	364/408
4,697,243	A	9/1987	Moore et al.	364/513
4,700,363	A	10/1987	Tomlinson et al.	375/37
4,702,254	A	10/1987	Zabara	128/421
4,702,385	A	10/1987	Shillington et al.	220/18
D292,777	S	11/1987	Shillington et al.	D9/446
4,708,142	A	11/1987	DeCote, Jr.	128/419 PT
4,708,144	A	11/1987	Hamilton et al.	128/419 PG
4,711,994	A	12/1987	Greenberg	235/384
4,712,555	A	12/1987	Thornander et al.	128/419 PG
4,713,815	A	12/1987	Bryan et al.	371/29
4,717,042	A	1/1988	McLaughlin	221/3
4,722,055	A	1/1988	Roberts	364/408
4,723,214	A	2/1988	Frei	364/434
4,730,252	A	3/1988	Bradshaw	364/403
4,734,568	A	3/1988	Watanabe	235/487
4,734,858	A	3/1988	Schlafly	364/408
4,735,204	A	4/1988	Sussman et al.	128/419 R
4,736,860	A	4/1988	Bemis	220/1 T
4,750,437	A	6/1988	Rouse	110/346
4,752,877	A	6/1988	Roberts et al.	364/408
4,754,410	A	6/1988	Leech et al.	364/513
4,755,940	A	7/1988	Brachtl et al.	364/408
4,761,748	A	8/1988	Le Rat et al.	364/551
4,763,277	A	8/1988	Ashford et al.	364/513
4,773,011	A	9/1988	VanHoose	
4,774,663	A	9/1988	Musmanno et al.	364/408
4,774,952	A	10/1988	Smits	128/419 D
4,775,935	A	10/1988	Yourick	364/401
4,779,728	A	10/1988	Hanifl et al.	206/366
4,783,740	A	11/1988	Ishizawa et al.	364/403
4,785,969	A	11/1988	McLaughlin	221/2
D298,864	S	12/1988	Jefferson	D26/140
4,789,928	A	12/1988	Fujisaki	364/401
4,795,890	A	1/1989	Goldman	235/380
4,796,292	A	1/1989	Thomas	379/91
4,798,676	A	1/1989	Matkovich	210/767
4,799,156	A	1/1989	Shavit et al.	364/401
4,802,423	A	2/1989	Pennington	110/233
4,804,090	A	2/1989	Schuh et al.	206/366
4,807,177	A	2/1989	Ward	364/900
4,809,154	A	2/1989	Newton	364/148
4,809,697	A	3/1989	Causey, III et al.	128/419 PT
4,809,850	A	3/1989	Laible et al.	206/366
4,812,628	A	3/1989	Boston et al.	235/380
4,812,990	A	3/1989	Adams et al.	364/444
4,812,994	A	3/1989	Taylor et al.	
4,817,605	A	4/1989	Sholder	128/419 PT

4,821,118	A	4/1989	Lafreniere	358/108
4,821,120	A	4/1989	Tomlinson	358/142
4,823,264	A	4/1989	Deming	364/408
4,823,265	A	4/1989	Nelson	364/408
4,823,306	A	4/1989	Barbic et al.	364/900
4,826,333	A	5/1989	Tanaka	400/76
4,827,508	A	5/1989	Shear	380/4
4,829,297	A	5/1989	Ilg et al.	
4,831,526	A	5/1989	Luchs et al.	364/401
4,837,693	A	6/1989	Schotz	364/408
4,839,804	A	6/1989	Roberts et al.	364/408
4,839,822	A	6/1989	Dormond et al.	364/513
4,839,829	A	6/1989	Freedman	364/519
4,842,138	A	6/1989	Sandel et al.	206/370
4,843,546	A	6/1989	Yoshida et al.	364/403
4,844,252	A	7/1989	Barron et al.	206/223
4,851,988	A	7/1989	Trottier et al.	364/200
4,852,794	A	8/1989	Bennett et al.	229/73
4,853,208	A	8/1989	Reimers et al.	423/659
4,860,317	A	8/1989	Tomlinson	375/58
4,862,376	A	8/1989	Ferriter et al.	364/468
4,864,507	A	9/1989	Ebling et al.	364/468
4,866,635	A	9/1989	Kahn et al.	364/513
4,867,164	A	9/1989	Zabara	128/421
4,876,648	A	10/1989	Lloyd	364/408
4,886,164	A	12/1989	Stein et al.	206/366
4,887,206	A	12/1989	Natarajan	364/401
4,887,208	A	12/1989	Schneider et al.	364/403
4,897,781	A	1/1990	Chang et al.	364/200
4,897,867	A	1/1990	Foster et al.	379/94
4,901,249	A	2/1990	Shiota	364/519
4,903,201	A	2/1990	Wagner	364/408
4,912,671	A	3/1990	Ishida	364/900
4,916,611	A	4/1990	Doyle, Jr. et al.	364/401
4,919,086	A	4/1990	Shillington	123/52 MC
4,920,488	A	4/1990	Filley	364/403
4,922,521	A	5/1990	Krikke et al.	379/95
4,925,048	A	5/1990	Noack	220/70
4,935,870	A	6/1990	Burk, Jr. et al.	364/200
4,937,743	A	6/1990	Rassman et al.	364/401
4,937,763	A	6/1990	Mott	364/550
4,939,689	A	7/1990	Davis et al.	364/900
4,940,157	A	7/1990	Inagaki	220/254
4,941,178	A	7/1990	Chuang	381/41
4,944,299	A	7/1990	Silvian	128/419 PG
4,945,476	A	7/1990	Bodick et al.	
4,947,028	A	8/1990	Gorog	235/381
4,949,248	A	8/1990	Caro	364/200
4,950,105	A	8/1990	Meess et al.	405/128
4,951,196	A	8/1990	Jackson	364/401
4,953,085	A	8/1990	Atkins	364/408
4,953,159	A	8/1990	Hayden et al.	370/62
4,953,745	A	9/1990	Rowlett, Jr.	221/5
4,958,280	A	9/1990	Pauly et al.	364/403
4,958,292	A	9/1990	Kaneko et al.	364/468
4,961,148	A	10/1990	Holda et al.	364/468
4,964,043	A	10/1990	Galvin	364/401
4,964,125	A	10/1990	Kim	371/151
4,969,094	A	11/1990	Halley et al.	364/408
4,972,318	A	11/1990	Brown et al.	364/403
4,972,453	A	11/1990	Daniel, III et al.	379/10
4,972,504	A	11/1990	Daniel, Jr. et al.	455/2
4,972,950	A	11/1990	Shillington	206/366
4,975,840	A	12/1990	DeTore et al.	364/401
4,975,968	A	12/1990	Yukl	382/1
4,977,595	A	12/1990	Ohta et al.	380/24
D313,670	S	1/1991	Barron et al.	D26/113
4,982,072	A	1/1991	Takigami	235/384
4,982,346	A	1/1991	Girouard et al.	364/550
4,984,155	A	1/1991	Geier et al.	364/401
4,984,686	A	1/1991	Shillington	206/366
4,985,857	A	1/1991	Bajpai et al.	702/184
4,987,538	A	1/1991	Johnson et al.	705/2
4,989,602	A	2/1991	Sholder et al.	128/419 D
4,992,939	A	2/1991	Tyler	364/401
4,992,940	A	2/1991	Dworkin	364/401
4,995,081	A	2/1991	Leighton et al.	380/23
4,998,753	A	3/1991	Wichael	283/82
4,998,975	A	3/1991	Cohen et al.	128/419 D
5,005,532	A	4/1991	Shillington	123/52 M
5,005,793	A	4/1991	Shillington	248/229
5,006,983	A	4/1991	Wayne et al.	364/401
5,006,998	A	4/1991	Yasunobu et al.	364/513
5,008,853	A	4/1991	Bly et al.	364/900
5,009,833	A	4/1991	Takeuchi et al.	376/217
5,014,875	A	5/1991	McLaughlin et al.	221/2
5,022,548	A	6/1991	Stakis	
5,023,910	A	6/1991	Thomson	381/37
5,024,326	A	6/1991	Sandel et al.	206/366
5,024,327	A	6/1991	Shillington	206/366
5,025,373	A	6/1991	Keyser, Jr. et al.	364/408
5,025,807	A	6/1991	Zabara	128/421
D318,159	S	7/1991	Noack	D34/5
5,032,989	A	7/1991	Tornetta	364/401
5,033,004	A	7/1991	Vandivier, III	364/468
5,035,858	A	7/1991	Held et al.	422/21
5,036,866	A	8/1991	Eldrige, Jr. et al.	128/849
5,038,283	A	8/1991	Caveney	364/403
5,040,534	A	8/1991	Mann et al.	128/419 PG
5,043,891	A	8/1991	Goldstein et al.	364/419
5,046,002	A	9/1991	Takashi et al.	364/200
5,046,614	A	9/1991	Torres et al.	206/366
5,048,766	A	9/1991	Gaylor et al.	241/65
5,050,031	A	9/1991	Weiley	360/137
5,050,075	A	9/1991	Herman et al.	364/200
5,053,607	A	10/1991	Carlson et al.	235/379
5,058,033	A	10/1991	Bonissone et al.	364/513
5,058,764	A	10/1991	Gaba	220/481
5,060,153	A	10/1991	Nakagawa	364/405
5,063,506	A	11/1991	Brockwell et al.	364/402
5,064,124	A	11/1991	Chang	241/33
5,072,832	A	12/1991	Valentine et al.	206/570
5,076,429	A	12/1991	Patrick et al.	206/370
5,077,607	A	12/1991	Johnson et al.	358/86
5,077,665	A	12/1991	Silverman et al.	364/408
5,080,251	A	1/1992	Noack	220/335
5,085,338	A	2/1992	Inagaki	220/254
5,092,480	A	3/1992	Waterston	220/234
5,097,950	A	3/1992	Weiss et al.	206/366
5,101,352	A	3/1992	Rembert	364/401
5,101,353	A	3/1992	Lupien et al.	364/408
5,101,424	A	3/1992	Clayton et al.	379/10
5,101,476	A	3/1992	Kukla	395/200
5,103,079	A	4/1992	Barakai et al.	235/380
5,103,820	A	4/1992	Markowitz	
5,103,822	A	4/1992	Duncan	128/419 PG
5,103,997	A	4/1992	Shillington et al.	220/481
5,104,047	A	4/1992	Simmons	241/20
5,106,594	A	4/1992	Held et al.	422/292
5,107,497	A	4/1992	Lirov et al.	371/151
5,107,990	A	4/1992	Wicherski et al.	206/366
5,109,337	A	4/1992	Ferriter et al.	364/401
5,109,515	A	4/1992	Laggis et al.	395/725
5,109,519	A	4/1992	Zimmet et al.	395/800
5,117,354	A	5/1992	Long et al.	364/401
5,117,355	A	5/1992	McCarthy	364/405
5,119,318	A	6/1992	Paradies et al.	395/61
5,122,950	A	6/1992	Benton et al.	364/408
5,122,952	A	6/1992	Minkus	364/419
5,124,125	A	6/1992	Brent	422/21
5,124,909	A	6/1992	Blakely et al.	395/200
5,124,911	A	6/1992	Sack	364/401
5,125,995	A	6/1992	D'Haese et al.	156/155
5,127,005	A	6/1992	Oda et al.	371/151
5,128,861	A	7/1992	Kagami et al.	364/403
5,132,968	A	7/1992	Cephus	370/941
5,136,501	A	8/1992	Silverman et al.	364/408
5,136,502	A	8/1992	Van Remortel et al.	
5,136,686	A	8/1992	Koza	395/13
5,138,569	A	8/1992	Valenzuela	
5,140,692	A	8/1992	Morita	395/600
5,144,556	A	9/1992	Wang et al.	364/419
5,145,063	A	9/1992	Lee	206/364
5,146,562	A	9/1992	Kukla	395/200
5,148,365	A	9/1992	Dembo	364/402
5,148,366	A	9/1992	Buchanan et al.	364/419
5,148,368	A	9/1992	Okubo	
5,152,751	A	10/1992	Kozlowski	604/192

5,154,345	A	10/1992	Shillington	232/44
5,159,315	A	10/1992	Schultz et al.	340/539
5,159,685	A	10/1992	Kung	395/575
5,159,687	A	10/1992	Richburg	395/700
5,161,211	A	11/1992	Taguchi et al.	395/10
5,161,929	A	11/1992	Lichti, Sr.	414/331
5,163,000	A	11/1992	Rogers et al.	
5,163,131	A	11/1992	Row et al.	395/200
5,164,897	A	11/1992	Clark et al.	364/401
5,167,193	A	12/1992	Withers et al.	110/346
5,168,444	A	12/1992	Cukor et al.	364/401
5,168,445	A	12/1992	Kawashima et al.	364/403
5,172,313	A	12/1992	Schumacher	364/401
5,175,682	A	12/1992	Higashiyama et al.	364/408
D332,680	S	1/1993	Ramirez	D34/7
5,177,342	A	1/1993	Adams	235/379
5,177,680	A	1/1993	Tsukino et al.	364/401
5,177,684	A	1/1993	Harker et al.	364/436
5,178,322	A	1/1993	Shillington	232/44
5,179,626	A	1/1993	Thomson	395/2
5,182,709	A	1/1993	Makus	364/419
5,182,793	A	1/1993	Alexander et al.	395/13
5,184,502	A	2/1993	Adams et al.	
5,184,720	A	2/1993	Packer et al.	206/366
5,189,606	A	2/1993	Burns et al.	364/401
D334,449	S	3/1993	Gaba et al.	D34/6
5,191,410	A	3/1993	McCalley et al.	358/86
5,191,522	A	3/1993	Bosco et al.	364/401
5,193,065	A	3/1993	Guerindon et al.	364/468
5,195,030	A	3/1993	White	364/401
5,195,635	A	3/1993	Cornwell	206/366
D334,973	S	4/1993	Valentine et al.	D24/227
5,202,825	A	4/1993	Miller et al.	364/405
5,202,827	A	4/1993	Sober	364/408
5,202,930	A	4/1993	Livshitz et al.	382/3
5,204,821	A	4/1993	Inui et al.	364/468
5,206,803	A	4/1993	Vitagliano et al.	364/408
5,206,804	A	4/1993	Thies et al.	364/401
5,208,665	A	5/1993	McCalley et al.	358/86
5,211,424	A	5/1993	Bliss	281/151
5,213,758	A	5/1993	Kawashima et al.	422/21
5,216,593	A	6/1993	Dietrich et al.	364/402
5,216,594	A	6/1993	White et al.	364/403
5,220,501	A	6/1993	Lawlor et al.	364/408
5,222,211	A	6/1993	Mueller et al.	395/161
5,223,207	A	6/1993	Gross et al.	376/216
5,224,034	A	6/1993	Katz et al.	364/401
5,224,206	A	6/1993	Simoudis	395/77
5,226,065	A	7/1993	Held et al.	378/64
5,226,165	A	7/1993	Martin	395/600
5,230,073	A	7/1993	Gausmann et al.	395/600
5,230,496	A	7/1993	Shillington et al.	
5,231,566	A	7/1993	Blutinger et al.	364/401
5,231,569	A	7/1993	Myatt et al.	364/408
5,231,571	A	7/1993	D'Agostino	364/408
5,231,938	A	8/1993	Gore	110/346
5,235,633	A	8/1993	Dennison et al.	379/60
5,235,680	A	8/1993	Bijnagte	395/161
5,236,135	A	8/1993	Wilson et al.	241/21
5,237,496	A	8/1993	Kagami et al.	364/401
5,237,497	A	8/1993	Sitarski	364/402
5,237,498	A	8/1993	Tenma et al.	364/406
5,237,499	A	8/1993	Garback	364/407
5,239,617	A	8/1993	Gardner et al.	395/12
5,240,108	A	8/1993	Tonna	206/366
5,241,464	A	8/1993	Greulich et al.	364/401
5,241,671	A	8/1993	Reed et al.	395/600
5,243,655	A	9/1993	Wang	380/51
5,245,535	A	9/1993	Weiss et al.	364/407
5,247,575	A	9/1993	Sprague et al.	380/9
5,249,120	A	9/1993	Foley	364/401
5,249,680	A	10/1993	Shillington	206/366
5,251,144	A	10/1993	Ramamurthi	364/474.19
5,253,164	A	10/1993	Holloway et al.	364/406
5,253,165	A	10/1993	Leiseca et al.	364/407
5,253,166	A	10/1993	Dettelbach et al.	364/407
5,255,184	A	10/1993	Hornick et al.	364/407
5,255,207	A	10/1993	Cornwell	364/512
5,256,861	A	10/1993	Anthony	219/494
5,257,186	A	10/1993	Ukita et al.	
5,257,577	A	11/1993	Clark	100/99
5,263,156	A	11/1993	Bowen et al.	395/600
5,265,006	A	11/1993	Asthana et al.	364/401
5,265,008	A	11/1993	Benton et al.	364/408
5,265,010	A	11/1993	Evans-Paganelli et al.	
5,265,065	A	11/1993	Turtle	395/600
5,265,724	A	11/1993	Dondlinger	206/366
5,270,922	A	12/1993	Higgins	364/408
5,271,892	A	12/1993	Hanson et al.	422/25
5,273,392	A	12/1993	Bernard, II et al.	414/786
5,274,572	A	12/1993	O'Neill et al.	364/550
5,274,749	A	12/1993	Evans	395/63
5,276,253	A	1/1994	Circeo, Jr. et al.	588/253
5,277,869	A	1/1994	Glazer et al.	422/26
5,278,751	A	1/1994	Adiano et al.	364/402
5,281,391	A	1/1994	Hanson et al.	422/25
5,281,816	A	1/1994	Jacobson et al.	250/339
5,282,265	A	1/1994	Rohra Suda et al.	395/12
5,283,731	A	2/1994	Lalonde et al.	364/401
5,283,865	A	2/1994	Johnson	395/161
5,285,383	A	2/1994	Lindsey et al.	364/408
5,289,371	A	2/1994	Abel et al.	364/401
5,289,787	A	3/1994	Eshleman	110/235
5,291,395	A	3/1994	Abecassis	364/401
5,291,396	A	3/1994	Calcerano et al.	364/401
5,291,398	A	3/1994	Hagan	364/408
5,291,560	A	3/1994	Daugman	382/2
5,293,309	A	3/1994	Sakai et al.	364/401
5,295,582	A	3/1994	Dan	209/3
5,297,031	A	3/1994	Gutterman et al.	364/408
5,297,032	A	3/1994	Trojan et al.	364/408
5,297,042	A	3/1994	Morita	
5,299,305	A	3/1994	Oomae et al.	395/149
D346,398	S	4/1994	Flanagan	D19/26
5,304,206	A	4/1994	Baker, Jr. et al.	607/2
5,305,195	A	4/1994	Murphy	364/401
5,305,197	A	4/1994	Axler et al.	364/401
5,307,260	A	4/1994	Watanabe et al.	364/401
5,309,355	A	5/1994	Lockwood	364/401
5,310,997	A	5/1994	Roach et al.	235/375
5,310,999	A	5/1994	Claus et al.	235/384
5,311,123	A	5/1994	Webster et al.	324/161
5,311,438	A	5/1994	Sellers et al.	364/468
5,311,594	A	5/1994	Penzias	380/23
5,311,876	A	5/1994	Olsen et al.	128/731
5,312,429	A	5/1994	Noack	606/167
5,315,303	A	5/1994	Tsou et al.	342/27
5,315,634	A	5/1994	Tanaka et al.	379/57
5,317,503	A	5/1994	Inoue	364/400
5,317,646	A	5/1994	Sang, Jr. et al.	382/9
5,317,677	A	5/1994	Dolan et al.	395/77
5,319,542	A	6/1994	King, Jr. et al.	364/401
5,319,544	A	6/1994	Schmerer et al.	364/403
5,319,739	A	6/1994	Yoshiura et al.	395/51
5,319,776	A	6/1994	Hile et al.	395/575
5,321,605	A	6/1994	Chapman et al.	364/402
5,321,751	A	6/1994	Ray et al.	380/23
5,321,841	A	6/1994	East et al.	395/725
5,322,603	A	6/1994	Kameda et al.	
5,323,315	A	6/1994	Highbloom	364/408
5,323,716	A	6/1994	Eshleman	110/255
5,323,994	A	6/1994	Shillington et al.	248/229
5,325,465	A	6/1994	Hung et al.	395/63
5,325,484	A	6/1994	Motoyama	395/162
D349,058	S	7/1994	Farce	D9/523
5,326,959	A	7/1994	Perazza	235/379
5,327,521	A	7/1994	Savic et al.	395/281
5,330,448	A	7/1994	Chu	604/280
5,330,504	A	7/1994	Somerville et al.	607/5
5,331,543	A	7/1994	Yajima et al.	364/401
5,331,546	A	7/1994	Webber et al.	364/407
5,333,237	A	7/1994	Stefanopoulos et al.	395/12
5,334,822	A	8/1994	Sanford	235/385
5,336,870	A	8/1994	Hughes et al.	235/379
5,338,144	A	8/1994	Eshleman	414/152
5,339,252	A	8/1994	White et al.	364/468
5,339,411	A	8/1994	Heaton, Jr.	395/600
5,339,955	A	8/1994	Horan et al.	206/370

5,341,429	A	8/1994	Stringer et al.	380/23
5,346,297	A	9/1994	Colson, Jr. et al.	312/215
5,347,632	A	9/1994	Filepp et al.	395/200
5,350,562	A	9/1994	Anthony	422/1
5,351,186	A	9/1994	Bullock et al.	364/401
5,351,293	A	9/1994	Michener et al.	380/21
D351,906	S	10/1994	Marsh	D24/131
5,353,719	A	10/1994	Eshleman et al.	110/188
5,354,000	A	10/1994	Wright et al.	241/33
5,355,474	A	10/1994	Thuraisngham et al.	395/600
5,357,439	A	10/1994	Matsuzaki et al.	364/468
5,361,199	A	11/1994	Shoquist et al.	364/401
5,361,201	A	11/1994	Jost et al.	364/401
5,361,709	A	11/1994	Eshleman	110/255
5,363,093	A	11/1994	Williams et al.	340/605
5,363,958	A	11/1994	Horan	206/356
5,367,452	A	11/1994	Gallery et al.	364/401
5,367,627	A	11/1994	Johnson	395/161
5,367,664	A	11/1994	Magill et al.	395/575
5,369,570	A	11/1994	Parad	364/401
5,372,725	A	12/1994	Halff et al.	210/761
5,377,098	A	12/1994	Sakai	364/406
5,377,116	A	12/1994	Wayne et al.	
5,377,269	A	12/1994	Heptig et al.	380/25
5,377,323	A	12/1994	Vasudevan	395/200
5,381,140	A	1/1995	Kuroda et al.	340/961
5,383,111	A	1/1995	Homma et al.	364/401
5,383,113	A	1/1995	Kight et al.	364/401
5,384,092	A	1/1995	Sawhill et al.	422/32
5,384,892	A	1/1995	Strong	395/252
5,385,105	A	1/1995	Withers, Jr. et al.	110/346
5,386,103	A	1/1995	DeBan et al.	235/379
5,386,104	A	1/1995	Sime	235/379
5,388,259	A	2/1995	Fleischman et al.	395/600
5,388,535	A	2/1995	Eshleman	110/255
5,389,084	A	2/1995	Horan et al.	604/192
5,390,262	A	2/1995	Pope	382/41
5,392,320	A	2/1995	Chao	376/215
5,392,951	A	2/1995	Gardner et al.	221/2
5,395,008	A	3/1995	Bemis et al.	220/481
5,395,338	A	3/1995	Gaba	604/110
5,395,393	A	3/1995	Wickham	607/5
5,396,253	A	3/1995	Chia	342/104
5,396,416	A	3/1995	Berkowitz et al.	364/165
5,397,068	A	3/1995	Solomons et al.	241/100
5,397,535	A	3/1995	Kaneko	422/22
5,401,444	A	3/1995	Spinello	264/5
5,401,944	A	3/1995	Bravman et al.	235/375
5,402,336	A	3/1995	Spiegelhoff et al.	364/401
5,402,521	A	3/1995	Niida et al.	395/22
5,402,524	A	3/1995	Bauman et al.	395/50
5,402,887	A	4/1995	Shillington	206/366
5,404,292	A	4/1995	Hendrickson	
5,405,048	A	4/1995	Rogers et al.	221/211
5,406,265	A	4/1995	Trozzo et al.	340/632
5,410,492	A	4/1995	Gross et al.	364/492
D358,326	S	5/1995	Tomasello	D9/424
D358,327	S	5/1995	Tomasello	D9/424
D358,527	S	5/1995	Danielson et al.	D7/332
5,412,190	A	5/1995	Josephson et al.	235/379
5,412,804	A	5/1995	Krishna	395/600
5,413,243	A	5/1995	Bemis et al.	220/481
5,414,833	A	5/1995	Hershey et al.	395/575
5,415,180	A	5/1995	Horan	128/846
5,415,315	A	5/1995	Ramirez	220/346
5,417,659	A	5/1995	Gaba	604/110
5,418,951	A	5/1995	Damashek	395/600
5,419,435	A	5/1995	Perzan et al.	206/366
5,421,672	A	6/1995	Ankeny et al.	405/128
5,423,033	A	6/1995	Yuen	395/600
5,423,450	A	6/1995	Shillington et al.	220/481
5,423,492	A	6/1995	Willis	241/81
5,424,947	A	6/1995	Nagao et al.	
5,425,458	A	6/1995	Gilcreest et al.	209/655
5,427,238	A	6/1995	Weiss	206/366
5,427,737	A	6/1995	Glazer et al.	422/26
5,429,506	A	7/1995	Brophy et al.	434/107
5,430,644	A	7/1995	Deaton et al.	364/401
5,432,822	A	7/1995	Kaewell, Jr.	375/340
5,432,904	A	7/1995	Wong	395/161
5,433,412	A	7/1995	Watt et al.	206/370
5,434,394	A	7/1995	Roach et al.	235/375
5,440,731	A	8/1995	Nagashima et al.	395/600
5,441,622	A	8/1995	Langford	204/275
5,442,771	A	8/1995	Filepp et al.	395/650
5,444,844	A	8/1995	Inoue et al.	395/161
5,445,294	A	8/1995	Gardner et al.	221/1
5,446,885	A	8/1995	Moore et al.	395/600
H1477	H	9/1995	Payne	405/128
5,449,068	A	9/1995	Gharibian	206/355
5,451,998	A	9/1995	Hamrick	348/13
5,453,601	A	9/1995	Rosen	235/379
5,453,933	A	9/1995	Wright et al.	
5,455,406	A	10/1995	Terashima et al.	235/379
5,455,407	A	10/1995	Rosen	235/380
5,455,903	A	10/1995	Jolissaint et al.	395/155
5,457,792	A	10/1995	Virgil et al.	395/600
5,459,304	A	10/1995	Eisenmann	235/380
5,459,675	A	10/1995	Gross et al.	364/492
5,460,294	A	10/1995	Williams	221/2
5,465,206	A	11/1995	Hilt et al.	364/406
5,465,291	A	11/1995	Barrus et al.	379/67
5,465,321	A	11/1995	Smyth	395/22
5,465,353	A	11/1995	Hull et al.	395/600
5,465,461	A	11/1995	Sandel	16/111 R
5,465,841	A	11/1995	Wilson et al.	206/366
5,467,270	A	11/1995	Matsumoto	364/403
5,469,498	A	11/1995	Abe et al.	379/127
5,469,600	A	11/1995	Sandel	16/111 R
5,470,022	A	11/1995	Wright et al.	241/33
5,470,342	A	11/1995	Mann et al.	607/5
5,471,575	A	11/1995	Giansante	395/144
5,471,705	A	12/1995	Dao	
5,472,167	A	12/1995	Shillington et al.	248/552
5,474,181	A	12/1995	Shillington et al.	206/370
5,475,585	A	12/1995	Bush	364/401
5,476,634	A	12/1995	Bridges et al.	422/22
5,477,465	A	12/1995	Zheng	364/485
5,479,344	A	12/1995	Keziah, Jr.	364/40 B
5,480,062	A	1/1996	Rogers et al.	221/174
5,481,647	A	1/1996	Brody et al.	395/51
5,483,445	A	1/1996	Pickering	364/406
5,483,637	A	1/1996	Winokur et al.	
5,484,988	A	1/1996	Hills et al.	235/379
5,485,369	A	1/1996	Nicholls et al.	364/401
5,486,410	A	1/1996	Groeger et al.	428/283
5,488,725	A	1/1996	Turtle et al.	395/600
5,490,217	A	2/1996	Wang et al.	380/51
5,493,490	A	2/1996	Johnson	364/401
5,493,491	A	2/1996	Calcerano et al.	364/403
5,493,689	A	2/1996	Waclawsky et al.	395/821
5,493,757	A	2/1996	Horan et al.	16/114 R
5,494,186	A	2/1996	Marsh	220/481
5,495,610	A	2/1996	Shing et al.	395/600
5,495,941	A	3/1996	Leonard	206/366
5,496,991	A	3/1996	Delfer, III et al.	235/379
5,497,488	A	3/1996	Akizawa et al.	395/600
5,498,002	A	3/1996	Gechter	273/434
5,498,003	A	3/1996	Gechter	273/434
5,500,513	A	3/1996	Langhans et al.	235/380
5,500,793	A	3/1996	Deming, Jr. et al.	364/401
5,502,576	A	3/1996	Ramsay et al.	358/444
5,502,636	A	3/1996	Clarke	364/401
5,502,764	A	3/1996	Naccache	380/23
5,504,321	A	4/1996	Sheldon	235/492
5,504,674	A	4/1996	Chen et al.	364/401
5,504,675	A	4/1996	Cragun et al.	364/401
5,504,893	A	4/1996	Kawashima et al.	395/600
5,506,794	A	4/1996	Lange	
5,507,408	A	4/1996	Mosior et al.	220/346
5,508,004	A	4/1996	Held et al.	422/22
5,508,706	A	4/1996	Tsou et al.	342/192
5,508,912	A	4/1996	Schneiderman	364/401
5,509,083	A	4/1996	Abtahi et al.	382/124
5,511,908	A	4/1996	Van Valkenburgh et al.	405/128
5,512,901	A	4/1996	Chen et al.	342/175
5,513,343	A	4/1996	Sakano et al.	
5,515,268	A	5/1996	Yoda	364/401

5,515,477	A	5/1996	Sutherland	395/27	5,611,038	A	3/1997	Shaw et al.	395/806
5,517,406	A	5/1996	Harris et al.	364/408	5,611,051	A	3/1997	Pirelli	395/210
5,517,596	A	5/1996	Pechanek et al.	395/23	5,611,270	A	3/1997	Harrington	100/102
5,519,931	A	5/1996	Reich		5,615,269	A	3/1997	Micali	380/49
5,520,282	A	5/1996	Williams, Jr.	206/370	5,616,136	A	4/1997	Shillington et al.	604/240
5,520,450	A	5/1996	Colson, Jr. et al.	312/215	5,620,466	A	4/1997	Haefner et al.	607/5
5,523,052	A	6/1996	Bridges et al.	422/22	5,621,663	A	4/1997	Skagerling	364/550
5,523,942	A	6/1996	Tyler et al.	364/401	5,621,797	A	4/1997	Rosen	380/24
5,525,136	A	6/1996	Rosen	55/486	5,621,812	A	4/1997	Deaton et al.	382/100
5,526,257	A	6/1996	Lerner	364/401	5,623,547	A	4/1997	Jones et al.	380/24
5,527,329	A	6/1996	Gharibian	606/167	5,623,552	A	4/1997	Lane	382/124
5,528,490	A	6/1996	Hill	364/403	5,623,660	A	4/1997	Josephson	395/609
5,530,438	A	6/1996	Bickham et al.		D379,405	S	5/1997	Shillington	D23/295
5,532,464	A	7/1996	Josephson et al.	235/379	5,626,240	A	5/1997	Friedrichs et al.	209/702
5,533,974	A	7/1996	Gaba	604/110	5,627,908	A	5/1997	Lee et al.	382/133
5,536,898	A	7/1996	Conner et al.	588/252	5,629,872	A	5/1997	Gross et al.	364/554
5,536,945	A	7/1996	Reich		5,629,982	A	5/1997	Micali	380/30
5,537,313	A	7/1996	Pirelli	364/403	5,630,069	A	5/1997	Flores et al.	395/207
5,537,314	A	7/1996	Kanter	364/406	5,630,070	A	5/1997	Dietrich et al.	395/208
5,537,590	A	7/1996	Amado	395/600	5,630,125	A	5/1997	Zellweger	395/614
5,538,132	A	7/1996	Propp et al.	206/365	5,630,127	A	5/1997	Moore et al.	395/615
5,539,677	A	7/1996	Smith	364/560	5,630,506	A	5/1997	Thorne et al.	206/366
5,539,877	A	7/1996	Winokur et al.		5,632,010	A	5/1997	Briechle et al.	345/1
5,541,832	A	7/1996	Nakajima et al.	364/148	5,634,127	A	5/1997	Cloud et al.	395/680
5,544,040	A	8/1996	Gerbaulet	364/401 R	5,637,101	A	6/1997	Shillington	604/242
5,544,352	A	8/1996	Egger	395/600	5,638,457	A	6/1997	Deaton et al.	382/100
5,546,507	A	8/1996	Staub	395/76	5,638,492	A	6/1997	Maeda et al.	395/50
5,546,578	A	8/1996	Takada	395/600	5,638,519	A	6/1997	Haluska	395/228
5,548,506	A	8/1996	Srinivasan	364/401 R	5,639,031	A	6/1997	Wright et al.	241/33
5,548,698	A	8/1996	Smith et al.	395/139	5,640,569	A	6/1997	Miller et al.	395/729
5,550,746	A	8/1996	Jacobs		5,640,835	A	6/1997	Muscoplat	53/569
5,553,094	A	9/1996	Johnson et al.	375/200	5,641,423	A	6/1997	Bridges et al.	219/770
5,554,175	A	9/1996	Alferness	607/5	5,642,419	A	6/1997	Rosen	380/23
5,555,191	A	9/1996	Hripcsak	364/514 R	5,643,402	A	7/1997	Schmid	156/509
5,557,518	A	9/1996	Rosen	364/408	5,644,493	A	7/1997	Motai et al.	
5,557,780	A	9/1996	Edwards et al.	395/500	5,644,686	A	7/1997	Hekmatpour	395/50
5,566,327	A	10/1996	Sehr	395/600	5,644,725	A	7/1997	Schmerer	395/228
5,568,028	A	10/1996	Uchiyama et al.	318/566	5,644,727	A	7/1997	Atkins	395/240
5,568,121	A	10/1996	Lamensdorf	340/539	5,644,778	A	7/1997	Burks et al.	395/800
5,568,871	A	10/1996	Shantzis	209/703	5,646,864	A	7/1997	Whitney	364/514 B
5,570,291	A	10/1996	Dudle et al.	364/468.01	5,647,502	A	7/1997	Marsh	220/481
5,570,292	A	10/1996	Abraham et al.		5,649,114	A	7/1997	Deaton et al.	395/214
5,570,783	A	11/1996	Thorne et al.	206/366	5,649,116	A	7/1997	McCoy et al.	395/238
5,571,957	A	11/1996	Tanaka	73/104	5,649,117	A	7/1997	Landry	395/240
5,573,113	A	11/1996	Shillington et al.	206/366	5,650,770	A	7/1997	Schlager et al.	340/573
5,573,529	A	11/1996	Haak et al.	606/1	5,651,125	A	7/1997	Witt et al.	395/394
5,577,040	A	11/1996	Klumpp	370/73	5,652,786	A	7/1997	Rogers	
5,578,808	A	11/1996	Taylor	235/380	5,655,008	A	8/1997	Futch et al.	
5,579,232	A	11/1996	Tong et al.		5,655,068	A	8/1997	Opoczynski	
D376,647	S	12/1996	Marsh et al.	D24/131	5,655,085	A	8/1997	Ryan et al.	364/401 R
5,581,664	A	12/1996	Allen et al.	395/51	5,655,088	A	8/1997	Midorikawa et al.	395/237
5,581,677	A	12/1996	Myers et al.	395/140	5,658,317	A	8/1997	Haefner et al.	607/5
5,581,749	A	12/1996	Hossain et al.	395/600	5,659,469	A	8/1997	Deaton et al.	395/214
5,582,793	A	12/1996	Glazer et al.	422/26	5,661,735	A	8/1997	Fischer	371/491
5,583,758	A	12/1996	McIlroy et al.	395/202	5,661,978	A	9/1997	Holmes et al.	62/36
5,584,016	A	12/1996	Varghese et al.		5,662,688	A	9/1997	Haefner et al.	607/5
5,584,025	A	12/1996	Keithley et al.	395/615	5,664,110	A	9/1997	Green et al.	705/26
5,584,302	A	12/1996	Sillaway et al.	128/845	5,664,111	A	9/1997	Nahan et al.	705/27
5,586,033	A	12/1996	Hall		5,664,112	A	9/1997	Sturgeon et al.	705/28
5,586,066	A	12/1996	White et al.	364/576	5,664,115	A	9/1997	Fraser	705/37
5,586,218	A	12/1996	Allen	395/10	5,666,420	A	9/1997	Micali	380/30
5,587,572	A	12/1996	Kirby	235/98 R	5,666,493	A	9/1997	Wojcik et al.	705/26
5,587,925	A	12/1996	Li	364/508	5,667,069	A	9/1997	Williams, Jr.	206/370
5,590,038	A	12/1996	Pitroda	395/241	5,668,928	A	9/1997	Groner	704/243
5,590,197	A	12/1996	Chen et al.	380/24	5,669,102	A	9/1997	Sandel	16/114 R
5,592,375	A	1/1997	Salomon et al.	395/207	5,672,883	A	9/1997	Reich	
5,592,378	A	1/1997	Cameron et al.	395/227	5,675,662	A	10/1997	Deaton et al.	382/137
5,592,560	A	1/1997	Deaton et al.	382/100	5,676,255	A	10/1997	Flowers	209/2
5,594,648	A	1/1997	Nakaura		5,677,997	A	10/1997	Talatik	395/10
5,596,642	A	1/1997	Davis et al.	380/24	5,678,568	A	10/1997	Uchikubo et al.	128/897
5,596,643	A	1/1997	Davis et al.	380/24	5,680,305	A	10/1997	Apgar, IV	364/401 R
5,602,886	A	2/1997	Gross et al.	376/253	5,680,409	A	10/1997	Qin et al.	371/48
5,603,013	A	2/1997	Ohara	395/500	5,682,466	A	10/1997	Maeda et al.	395/50
5,604,802	A	2/1997	Holloway	380/24	5,682,482	A	10/1997	Burt et al.	395/242
5,605,245	A	2/1997	Bemis et al.	220/324	5,684,965	A	11/1997	Pickering	395/234
5,608,622	A	3/1997	Church	395/753	5,684,984	A	11/1997	Jones et al.	395/610
5,608,898	A	3/1997	Turpin et al.	395/619	5,684,999	A	11/1997	Okamoto	395/759
5,609,820	A	3/1997	Bridges et al.	422/23	5,687,322	A	11/1997	Deaton et al.	395/214
5,610,839	A	3/1997	Karolak et al.	364/514 C	5,688,399	A	11/1997	Halff et al.	210/178

5,689,062	A	11/1997	Jawahir et al.	73/104
5,689,650	A	11/1997	McClelland et al.	395/236
5,689,652	A	11/1997	Lupien et al.	395/237
5,690,683	A	11/1997	Haefner et al.	607/4
5,691,524	A	11/1997	Josephson	235/379
5,692,132	A	11/1997	Hogan	395/227
5,693,028	A	12/1997	Shillington	604/240
5,694,546	A	12/1997	Reisman	
5,694,551	A	12/1997	Doyle et al.	395/226
5,696,907	A	12/1997	Tom	395/238
5,696,909	A	12/1997	Wallner	395/244
5,699,528	A	12/1997	Hogan	395/240
5,701,400	A	12/1997	Amado	395/76
RE35,715	E	1/1998	Circeo, Jr. et al.	588/253
5,706,290	A	1/1998	Shaw et al.	370/465
5,706,321	A	1/1998	Chen et al.	376/463
5,706,406	A	1/1998	Pollock	395/55
5,709,842	A	1/1998	Held et al.	422/292
5,710,887	A	1/1998	Chelliah et al.	395/226
5,710,889	A	1/1998	Clark et al.	395/244
5,712,472	A	1/1998	Lee	235/486
5,712,914	A	1/1998	Aucsmith et al.	380/30
5,712,989	A	1/1998	Johnson et al.	395/228
5,712,990	A	1/1998	Henderson	395/228
5,713,923	A	2/1998	Ward et al.	607/3
5,715,298	A	2/1998	Rogers	
5,715,314	A	2/1998	Payne et al.	380/24
5,715,402	A	2/1998	Popolo	395/237
5,715,448	A	2/1998	Suzuki et al.	395/609
5,715,468	A	2/1998	Budzinski	395/759
5,716,114	A	2/1998	Holmes et al.	312/215
5,717,835	A	2/1998	Hellerstein	395/51
5,717,868	A	2/1998	James	395/235
5,717,989	A	2/1998	Tozzoli et al.	705/37
5,718,168	A	2/1998	Harrington	100/226
5,719,563	A	2/1998	Thompson, Jr.	
5,721,832	A	2/1998	Westrope et al.	395/227
5,721,898	A	2/1998	Beardsley et al.	395/603
D391,726	S	3/1998	Williams et al.	D34/11
5,724,262	A	3/1998	Ghahramani	
5,724,424	A	3/1998	Gifford	380/24
5,724,522	A	3/1998	Kagami et al.	395/226
5,725,993	A	3/1998	Bringley et al.	430/269
5,726,884	A	3/1998	Sturgeon et al.	395/209
5,726,898	A	3/1998	Jacobs	
5,727,048	A	3/1998	Hiroshima et al.	
5,727,161	A	3/1998	Purcell, Jr.	395/207
5,727,164	A	3/1998	Kaye et al.	395/228
5,727,165	A	3/1998	Ordish et al.	395/237
5,729,735	A	3/1998	Meyering	395/610
5,732,148	A	3/1998	Keagy et al.	382/124
5,732,397	A	3/1998	DeTore et al.	705/1
5,732,398	A	3/1998	Tagawa	705/5
5,732,400	A	3/1998	Mandler et al.	705/26
5,732,401	A	3/1998	Conway	705/29
5,735,639	A	4/1998	Payne et al.	405/128
5,735,797	A	4/1998	Muzilla et al.	600/441
5,737,215	A	4/1998	Schricker et al.	364/149
5,737,626	A	4/1998	Hall et al.	
5,737,726	A	4/1998	Cameron et al.	705/7
5,739,508	A	4/1998	Uber, III	235/375
5,740,033	A	4/1998	Wassick et al.	364/149
5,740,388	A	4/1998	Hunt	395/328
5,742,813	A	4/1998	Kavanagh et al.	395/608
5,743,860	A	4/1998	Hively et al.	600/544
5,745,382	A	4/1998	Vilim et al.	
5,745,654	A	4/1998	Titan	395/22
5,745,687	A	4/1998	Randell	
5,745,712	A	4/1998	Turpin et al.	395/333
5,745,765	A	4/1998	Paseman	395/701
5,745,776	A	4/1998	Sheppard, II	395/794
5,745,882	A	4/1998	Bixler et al.	705/26
5,747,053	A	5/1998	Nashimoto et al.	424/405
5,748,737	A	5/1998	Daggar	380/24
5,748,850	A	5/1998	Sakurai	395/50
5,749,081	A	5/1998	Whiteis	707/102
5,750,972	A	5/1998	Botvin	235/379
5,752,234	A	5/1998	Withers	705/2
5,752,244	A	5/1998	Rose et al.	707/5
5,754,191	A	5/1998	Mills et al.	345/508
5,754,738	A	5/1998	Saucedo et al.	395/12
5,754,766	A	5/1998	Shaw et al.	709/200
5,754,864	A	5/1998	Hill	395/712
5,754,939	A	5/1998	Herz et al.	455/42
5,755,698	A	5/1998	Kagan et al.	604/179
5,757,917	A	5/1998	Rose et al.	380/25
5,758,026	A	5/1998	Lobley et al.	395/12
5,758,095	A	5/1998	Albaum et al.	395/202
5,758,126	A	5/1998	Daniels et al.	395/500
5,758,147	A	5/1998	Chen et al.	395/606
5,758,327	A	5/1998	Gardner et al.	705/26
5,758,328	A	5/1998	Giovannoli	705/26
5,758,329	A	5/1998	Wojcik et al.	705/28
5,761,090	A	6/1998	Gross et al.	
5,761,432	A	6/1998	Bergholm et al.	
5,761,502	A	6/1998	Jacobs	395/614
5,761,649	A	6/1998	Hill	705/27
5,761,661	A	6/1998	Coussens et al.	707/9
5,764,509	A	6/1998	Gross et al.	364/149
5,764,515	A	6/1998	Guerillot et al.	364/420
5,764,543	A	6/1998	Kennedy	364/578
5,764,856	A	6/1998	Jaenecke	395/11
5,765,138	A	6/1998	Aycock et al.	705/7
5,768,142	A	6/1998	Jacobs	
5,768,389	A	6/1998	Ishii	380/30
5,768,501	A	6/1998	Lewis	
5,772,059	A	6/1998	McCord	220/254
5,774,379	A	6/1998	Gross et al.	364/576
5,774,569	A	6/1998	Waldenmaier	382/100
5,774,668	A	6/1998	Choquier et al.	
5,774,835	A	6/1998	Ozawa	704/205
5,774,839	A	6/1998	Shlomot	704/222
5,774,866	A	6/1998	Horwitz et al.	705/7
5,774,873	A	6/1998	Berent et al.	705/26
5,778,155	A	7/1998	Hepner	395/51
5,778,356	A	7/1998	Heiny	707/2
5,781,632	A	7/1998	Odom	380/24
5,781,772	A	7/1998	Wilkinson, III et al.	395/600
5,783,808	A	7/1998	Josephson	235/379
5,785,573	A	7/1998	Rothbarth et al.	446/171
5,785,591	A	7/1998	Payne	454/118
5,787,156	A	7/1998	Katz	
5,787,186	A	7/1998	Schroeder	382/115
5,787,235	A	7/1998	Smith et al.	395/50
5,787,402	A	7/1998	Potter et al.	705/37
5,787,438	A	7/1998	Cink et al.	707/103
5,787,443	A	7/1998	Palmer	707/202
H1743	H	8/1998	Graves et al.	
5,790,674	A	8/1998	Houvener et al.	380/23
5,790,780	A	8/1998	Brichta et al.	
5,792,188	A	8/1998	Starkweather et al.	607/5
5,793,632	A	8/1998	Fad et al.	
5,794,006	A	8/1998	Sanderman	395/500
5,794,206	A	8/1998	Wilkinson et al.	705/1
5,794,207	A	8/1998	Walker et al.	705/23
5,794,210	A	8/1998	Goldhaber et al.	705/14
5,794,212	A	8/1998	Mistr, Jr.	705/26
5,794,216	A	8/1998	Brown	705/27
5,794,219	A	8/1998	Brown	705/37
5,794,789	A	8/1998	Payson et al.	209/549
5,799,087	A	8/1998	Rosen	380/24
5,799,157	A	8/1998	Escallon	395/227
5,799,285	A	8/1998	Klingman	705/26
5,799,289	A	8/1998	Fukushima et al.	705/400
5,799,311	A	8/1998	Agrawal et al.	707/102
5,801,366	A	9/1998	Funk et al.	235/380
5,801,367	A	9/1998	Asplund et al.	235/384
5,802,502	A	9/1998	Gell et al.	705/37
5,805,458	A	9/1998	McNamara et al.	364/483
5,805,676	A	9/1998	Martino	
5,805,813	A	9/1998	Schweitzer, III	
5,806,048	A	9/1998	Kiron et al.	705/36
5,806,519	A	9/1998	Evans, III et al.	128/654
5,808,894	A	9/1998	Wiens et al.	
5,809,212	A	9/1998	Shasha	395/10
5,809,479	A	9/1998	Martin et al.	705/11
5,809,499	A	9/1998	Wong et al.	707/6
5,812,668	A	9/1998	Weber	380/24

5,812,670	A	9/1998	Micali	380/25
5,815,252	A	9/1998	Price-Francis	356/71
5,815,657	A	9/1998	Williams et al.	395/186
5,815,683	A	9/1998	Vogler	395/500
5,818,914	A	10/1998	Fujisaki	
5,819,028	A	10/1998	Manghirmalani et al.	
5,819,226	A	10/1998	Gopinathan et al.	705/1
5,819,241	A	10/1998	Reiter	705/408
5,819,263	A	10/1998	Bromley et al.	707/3
5,819,267	A	10/1998	Uyama	707/6
5,819,273	A	10/1998	Vora et al.	707/10
5,819,290	A	10/1998	Fujita	707/2
5,820,770	A	10/1998	Cohen et al.	216/22
5,821,872	A	10/1998	Brown et al.	
5,822,737	A	10/1998	Ogram	705/26
5,822,743	A	10/1998	Gupta et al.	706/50
5,826,014	A	10/1998	Coley et al.	
5,826,242	A	10/1998	Montulli	705/27
5,826,244	A	10/1998	Huberman	705/37
5,826,245	A	10/1998	Sandberg-Diment	705/44
5,828,567	A	10/1998	Eryurek et al.	364/184
5,829,002	A	10/1998	Priest	707/10
5,829,588	A	11/1998	Bloomfield	206/366
5,830,419	A	11/1998	Held et al.	422/307
5,832,196	A	11/1998	Croslin et al.	
5,832,459	A	11/1998	Cameron et al.	705/26
5,832,462	A	11/1998	Midorikawa et al.	705/35
5,832,463	A	11/1998	Funk	705/35
5,832,465	A	11/1998	Tom	706/51
5,832,497	A	11/1998	Taylor	707/104
5,833,683	A	11/1998	Fuller et al.	606/17
5,833,922	A	11/1998	Held et al.	422/22
5,835,683	A	11/1998	Corella et al.	395/75
5,835,896	A	11/1998	Fisher et al.	705/37
5,835,910	A	11/1998	Kavanagh et al.	707/103
5,835,911	A	11/1998	Nakagawa et al.	707/203
5,835,922	A	11/1998	Shima et al.	707/522
5,836,971	A	11/1998	Starkweather	607/4
5,836,989	A	11/1998	Shelton	607/27
5,837,171	A	11/1998	Danzik et al.	264/457
5,838,906	A	11/1998	Doyle et al.	
5,838,965	A	11/1998	Kavanagh et al.	395/614
5,839,117	A	11/1998	Cameron et al.	705/27
5,839,119	A	11/1998	Krsul et al.	705/39
5,840,026	A	11/1998	Uber, III et al.	600/431
5,842,178	A	11/1998	Giovannoli	705/26
5,842,201	A	11/1998	Wallack	707/3
5,842,221	A	11/1998	Schmonsees	707/104
5,842,652	A	12/1998	Warsing et al.	241/81
5,842,976	A	12/1998	Williamson	600/300
5,843,037	A	12/1998	Uber, III	604/151
5,843,130	A	12/1998	Jazayeri	607/5
5,844,553	A	12/1998	Hao et al.	345/329
5,844,554	A	12/1998	Geller et al.	345/333
5,845,255	A	12/1998	Mayaud	705/3
5,845,261	A	12/1998	McAbian	705/26
5,845,265	A	12/1998	Woolston	705/37
5,845,266	A	12/1998	Lupien et al.	705/37
5,845,296	A	12/1998	Jasuja et al.	707/205
5,847,374	A	12/1998	Menconi	235/492
5,847,845	A	12/1998	Takahashi et al.	358/475
5,847,971	A	12/1998	Ladner et al.	364/512
5,848,395	A	12/1998	Edgar et al.	705/9
5,848,399	A	12/1998	Burke	705/27
5,848,400	A	12/1998	Chang	705/35
5,848,427	A	12/1998	Hyodo	707/513
5,848,593	A	12/1998	McGrady et al.	128/897
5,848,692	A	12/1998	Thorne et al.	206/366
5,850,442	A	12/1998	Muftic	380/21
5,850,446	A	12/1998	Berger et al.	380/24
5,852,809	A	12/1998	Abel et al.	705/26
5,852,810	A	12/1998	Sotiroff et al.	705/27
5,852,812	A	12/1998	Reeder	705/39
5,855,005	A	12/1998	Schuler et al.	705/4
5,855,008	A	12/1998	Goldhaber et al.	705/14
5,856,931	A	1/1999	McCasland	364/550
5,857,174	A	1/1999	Dugan	705/1
5,857,978	A	1/1999	Hively et al.	600/544
5,857,993	A	1/1999	Atanasoska et al.	604/20
5,860,917	A	1/1999	Comanor et al.	600/300
5,862,223	A	1/1999	Walker et al.	380/25
5,862,530	A	1/1999	Shillington	2/439
5,864,325	A	1/1999	Briechle et al.	345/1
5,864,483	A	1/1999	Brichta	
5,864,662	A	1/1999	Brownmiller et al.	
5,864,738	A	1/1999	Kessler et al.	
5,864,773	A	1/1999	Barna et al.	702/85
5,864,823	A	1/1999	Levitan	105/14
5,864,827	A	1/1999	Wilson	705/35
5,864,837	A	1/1999	Maimone	707/1
5,866,888	A	2/1999	Bravman et al.	235/375
5,867,387	A	2/1999	Kavana	
5,868,669	A	2/1999	Iliff	600/300
5,870,456	A	2/1999	Rogers	
5,870,473	A	2/1999	Boesch et al.	580/21
5,870,715	A	2/1999	Belitz et al.	705/22
5,870,717	A	2/1999	Wiecha	705/26
5,870,719	A	2/1999	Maritzen et al.	705/26
5,870,721	A	2/1999	Norris	705/38
5,870,724	A	2/1999	Lawlor et al.	705/42
5,870,755	A	2/1999	Stevens et al.	707/104
5,872,848	A	2/1999	Romney et al.	380/25
5,873,069	A	2/1999	Reuhl et al.	705/20
5,873,071	A	2/1999	Ferstenberg et al.	705/37
5,873,072	A	2/1999	Kight et al.	705/40
5,873,094	A	2/1999	Talatik	707/104
5,875,110	A	2/1999	Jacobs	
5,875,236	A	2/1999	Jankowitz et al.	379/114
5,875,432	A	2/1999	Sehr	705/12
5,877,999	A	3/1999	Holt et al.	367/151
5,878,141	A	3/1999	Daly et al.	380/25
5,878,385	A	3/1999	Bralich et al.	704/9
5,878,401	A	3/1999	Joseph	705/22
5,878,403	A	3/1999	DeFrancesco et al.	705/38
5,878,416	A	3/1999	Harris et al.	707/10
5,878,419	A	3/1999	Carter	707/10
5,883,806	A	3/1999	Meador et al.	
5,883,955	A	3/1999	Ronning	380/4
5,884,270	A	3/1999	Walker et al.	705/1
5,884,272	A	3/1999	Walker et al.	705/1
5,884,281	A	3/1999	Smith et al.	705/26
5,884,288	A	3/1999	Chang et al.	705/40
5,884,290	A	3/1999	Smorodinsky et al.	705/44
5,884,294	A	3/1999	Kadar et al.	706/10
5,884,300	A	3/1999	Brockman	707/2
5,889,863	A	3/1999	Weber	380/25
5,890,129	A	3/1999	Spurgeon	705/4
5,890,137	A	3/1999	Koreeda	705/26
5,890,138	A	3/1999	Godin et al.	705/26
5,890,140	A	3/1999	Clark et al.	705/35
5,890,145	A	3/1999	Kawamura	706/46
5,890,175	A	3/1999	Wong et al.	707/505
5,891,169	A	4/1999	Boheim et al.	607/4
5,892,761	A	4/1999	Stracke, Jr.	370/395
5,892,900	A	4/1999	Ginter et al.	395/186
5,893,076	A	4/1999	Hafner et al.	705/28
5,893,077	A	4/1999	Griffin	705/34
5,893,080	A	4/1999	McGurl et al.	705/40
5,893,904	A	4/1999	Harris et al.	705/27
5,893,905	A	4/1999	Main et al.	705/11
5,894,558	A	4/1999	Falker	
5,895,454	A	4/1999	Harrington	705/26
5,897,635	A	4/1999	Torres et al.	707/10
5,898,154	A	4/1999	Rosen	235/379
5,898,594	A	4/1999	Leason et al.	
5,898,762	A	4/1999	Katz	
5,898,777	A	4/1999	Tycksen, Jr. et al.	380/4
5,898,830	A	4/1999	Wesinger, Jr. et al.	
5,899,980	A	5/1999	Wilf et al.	705/26
5,899,985	A	5/1999	Tanaka	706/45
5,903,652	A	5/1999	Mital	380/25
5,903,721	A	5/1999	Sixtus	
5,903,878	A	5/1999	Talati et al.	705/26
5,903,880	A	5/1999	Biffar	705/39
5,903,901	A	5/1999	Kawakura et al.	707/501
5,905,736	A	5/1999	Ronen et al.	370/546
5,905,973	A	5/1999	Yonezawa et al.	705/27
5,905,975	A	5/1999	Ausubel	705/37

5,905,978	A	5/1999	Smith et al.	706/52
5,905,989	A	5/1999	Biggs	707/104
5,906,677	A	5/1999	Dudley	96/17
5,907,490	A	5/1999	Oliver	
5,907,547	A	5/1999	Foladare et al.	370/352
5,907,620	A	5/1999	Klemba et al.	380/25
5,907,831	A	5/1999	Lotvin et al.	705/14
5,908,343	A	6/1999	Rothbarth et al.	446/171
5,909,023	A	6/1999	Ono et al.	235/380
5,909,492	A	6/1999	Payne et al.	380/24
5,909,670	A	6/1999	Trader et al.	705/14
5,910,107	A	6/1999	Iliff	600/300
5,910,987	A	6/1999	Ginter et al.	380/24
5,912,818	A	6/1999	McGrady et al.	
5,912,981	A	6/1999	Hansmire et al.	382/116
5,913,211	A	6/1999	Nitta	707/5
5,915,019	A	6/1999	Ginter et al.	380/4
5,915,038	A	6/1999	Abdel-Mottaleb et al.	382/209
5,915,209	A	6/1999	Lawrence	455/312
5,915,245	A	6/1999	Patterson, Jr. et al.	705/35
5,916,202	A	6/1999	Haswell	604/356
5,917,428	A	6/1999	Discenzo et al.	
5,917,893	A	6/1999	Katz	
5,917,912	A	6/1999	Ginter et al.	380/24
5,918,213	A	6/1999	Bernard et al.	705/26
5,920,053	A	7/1999	DeBrouse	235/375
5,920,054	A	7/1999	Uber, III	235/375
5,920,629	A	7/1999	Rosen	380/24
5,920,847	A	7/1999	Kolling et al.	705/40
5,920,848	A	7/1999	Schutzer et al.	705/42
5,920,861	A	7/1999	Hall et al.	707/9
5,923,001	A	7/1999	Morris et al.	177/245
5,923,552	A	7/1999	Brown et al.	
5,924,068	A	7/1999	Richard et al.	704/260
5,924,080	A	7/1999	Johnson	705/26
5,924,082	A	7/1999	Silverman et al.	705/37
5,924,083	A	7/1999	Silverman et al.	705/37
5,926,793	A	7/1999	de Rafael et al.	705/5
5,926,796	A	7/1999	Walker et al.	705/16
5,928,272	A	7/1999	Adkins et al.	607/45
5,928,323	A	7/1999	Gosling et al.	709/203
5,930,753	A	7/1999	Potamianos et al.	704/256
5,930,763	A	7/1999	Kaneko et al.	705/8
5,930,764	A	7/1999	Melchione et al.	705/10
5,930,767	A	7/1999	Reber et al.	705/26
5,930,768	A	7/1999	Hooban	705/27
5,930,773	A	7/1999	Crooks et al.	705/30
5,930,776	A	7/1999	Dykstra et al.	705/38
5,930,777	A	7/1999	Barber	705/40
5,931,900	A	8/1999	Notani et al.	709/201
5,931,917	A	8/1999	Nguyen et al.	709/250
5,932,867	A	8/1999	Speckhart et al.	235/491
5,933,599	A	8/1999	Nolan	
5,933,809	A	8/1999	Hunt et al.	705/3
5,933,829	A	8/1999	Durst et al.	707/10
5,935,060	A	8/1999	Iliff	600/300
5,936,219	A	8/1999	Yoshida et al.	235/379
5,936,221	A	8/1999	Corder et al.	235/380
5,936,860	A	8/1999	Arnold et al.	
5,937,158	A	8/1999	Uranaka	395/186
5,937,393	A	8/1999	O'Leary et al.	705/21
5,940,082	A	8/1999	Brinegar et al.	345/442
5,940,306	A	8/1999	Gardner et al.	
5,940,807	A	8/1999	Purcell	705/26
5,940,816	A	8/1999	Fuhrer et al.	706/13
5,940,823	A	8/1999	Schreiber et al.	707/3
5,941,385	A	8/1999	Barton	206/366
5,941,947	A	8/1999	Brown et al.	709/225
5,941,996	A	8/1999	Smith et al.	714/47
5,943,421	A	8/1999	Grabon	380/4
5,943,424	A	8/1999	Berger et al.	380/25
5,943,429	A	8/1999	Handel	381/942
5,943,656	A	8/1999	Crooks et al.	705/30
5,946,659	A	8/1999	Lancelot et al.	705/3
5,946,662	A	8/1999	Ettl et al.	705/8
5,946,665	A	8/1999	Suzuki et al.	705/26
5,946,666	A	8/1999	Nevo et al.	705/36
5,946,667	A	8/1999	Tull, Jr. et al.	705/36
5,947,285	A	9/1999	Gaba et al.	206/366
5,947,950	A	9/1999	Shillington et al.	604/403
5,948,054	A	9/1999	Nielsen	709/200
5,948,061	A	9/1999	Merriman et al.	709/219
5,949,045	A	9/1999	Ezawa et al.	235/379
5,949,415	A	9/1999	Lin et al.	345/335
5,949,876	A	9/1999	Ginter et al.	380/4
5,950,147	A	9/1999	Sarangapani et al.	702/179
5,950,169	A	9/1999	Borghesi et al.	705/4
5,950,172	A	9/1999	Klingman	705/26
5,950,176	A	9/1999	Keiser et al.	705/37
5,950,177	A	9/1999	Lupien et al.	705/37
5,950,178	A	9/1999	Borgato	705/37
5,950,206	A	9/1999	Krause	707/104
5,951,694	A	9/1999	Choquier et al.	714/15
5,952,890	A	9/1999	Fallisgaard et al.	331/18
5,953,423	A	9/1999	Rosen	380/24
5,953,704	A	9/1999	McIlroy et al.	705/2
5,953,707	A	9/1999	Huang et al.	705/10
5,956,483	A	9/1999	Grate et al.	
5,956,489	A	9/1999	San Andres et al.	
5,956,509	A	9/1999	Kevner	395/684
5,956,689	A	9/1999	Everhart, III	705/3
5,956,700	A	9/1999	Landry	705/40
5,958,241	A	9/1999	DeBenedetto et al.	210/611
5,960,408	A	9/1999	Martin et al.	705/11
5,960,411	A	9/1999	Hartman et al.	705/26
5,960,419	A	9/1999	Fagg, III et al.	706/59
5,963,648	A	10/1999	Rosen	380/24
5,963,910	A	10/1999	Ulwick	705/7
5,963,917	A	10/1999	Ogram	705/26
5,963,918	A	10/1999	Reagan et al.	705/28
5,963,919	A	10/1999	Brinkley et al.	705/28
5,963,923	A	10/1999	Garber	705/37
5,963,924	A	10/1999	Williams et al.	705/40
5,963,925	A	10/1999	Kolling et al.	705/40
5,965,858	A	10/1999	Suzuki et al.	235/375
5,966,699	A	10/1999	Zandi	705/38
5,968,110	A	10/1999	Westrope et al.	703/27
5,970,469	A	10/1999	Scroggie et al.	705/14
5,970,471	A	10/1999	Hill	705/26
5,970,475	A	10/1999	Barnes et al.	705/27
5,970,482	A	10/1999	Pham et al.	706/16
5,973,731	A	10/1999	Schwab	348/161
5,974,388	A	10/1999	Durham	705/1
5,974,391	A	10/1999	Hongawa	705/7
5,974,395	A	10/1999	Bellini et al.	705/9
5,974,400	A	10/1999	Kagami et al.	705/26
5,974,403	A	10/1999	Takriti et al.	705/412
5,974,406	A	10/1999	Bisdikian et al.	707/1
5,974,409	A	10/1999	Sanu et al.	707/3
5,977,998	A	11/1999	Briechle et al.	345/520
5,978,702	A	11/1999	Ward et al.	607/3
5,978,768	A	11/1999	McGovern et al.	705/1
5,978,773	A	11/1999	Hudetz et al.	705/23
5,978,776	A	11/1999	Seretti et al.	705/26
5,978,779	A	11/1999	Stein et al.	705/37
5,978,840	A	11/1999	Nguyen et al.	709/217
5,982,445	A	11/1999	Eyer et al.	348/461
5,982,891	A	11/1999	Ginter et al.	380/4
5,982,929	A	11/1999	Ilan et al.	382/200
5,983,004	A	11/1999	Shaw et al.	
5,983,138	A	11/1999	Kramer	607/9
5,983,194	A	11/1999	Hogge et al.	705/7
5,983,199	A	11/1999	Kaneko	705/26
5,983,200	A	11/1999	Slotznick	705/26
5,983,202	A	11/1999	Yabe et al.	705/28
5,983,207	A	11/1999	Turk et al.	705/39
5,983,208	A	11/1999	Haller et al.	705/40
5,983,243	A	11/1999	Heiney et al.	707/500
5,983,273	A	11/1999	White et al.	709/229
5,987,103	A	11/1999	Martino	
5,987,132	A	11/1999	Rowney	380/24
5,987,140	A	11/1999	Rowney et al.	380/49
5,987,180	A	11/1999	Reitmeier	382/236
5,987,399	A	11/1999	Wegerich et al.	702/183
5,987,423	A	11/1999	Arnold et al.	705/14
5,987,425	A	11/1999	Hartman et al.	705/20
5,987,426	A	11/1999	Goodwin, III	705/21
5,987,434	A	11/1999	Libman	705/36 R

5,987,435	A	11/1999	Weiss et al.	705/36	6,023,685	A	2/2000	Brett et al.	705/37
5,987,440	A	11/1999	O'Neil et al.	705/44	6,023,686	A	2/2000	Brown	705/37
5,991,525	A	11/1999	Shah et al.		6,024,216	A	2/2000	Shillington et al.	206/366
5,991,728	A	11/1999	DeBusk et al.	705/2	6,025,877	A	2/2000	Chang et al.	348/395
5,991,738	A	11/1999	Ogram	705/26	6,026,374	A	2/2000	Chess	705/26
5,991,743	A	11/1999	Irving et al.	705/36	6,026,376	A	2/2000	Kenney	705/27
5,991,750	A	11/1999	Watson	705/44	6,026,377	A	2/2000	Burke	705/27
5,993,046	A	11/1999	McGrady et al.		6,026,378	A	2/2000	Onozaki	705/28
5,995,868	A	11/1999	Dorfmeister et al.	600/544	6,026,379	A	2/2000	Haller et al.	705/34
5,995,937	A	11/1999	DeBusk et al.	705/2	6,026,383	A	2/2000	Ausubel	705/37
5,995,939	A	11/1999	Berman et al.	705/3	6,026,393	A	2/2000	Gupta et al.	707/3
5,995,947	A	11/1999	Fraser et al.	705/38	6,027,490	A	2/2000	Radford et al.	604/540
5,995,951	A	11/1999	Ferguson	706/10	6,029,138	A	2/2000	Khorasani et al.	705/2
5,995,975	A	11/1999	Malcolm	707/103	6,029,140	A	2/2000	Martin et al.	705/11
5,996,076	A	11/1999	Rowney et al.	713/201	6,029,141	A	2/2000	Bezos et al.	705/27
5,999,525	A	12/1999	Krishnaswamy et al.	370/352	6,029,142	A	2/2000	Hill	705/27
5,999,625	A	12/1999	Bellare et al.	380/24	6,029,146	A	2/2000	Hawkins et al.	705/35
5,999,914	A	12/1999	Blinn et al.	705/26	6,029,149	A	2/2000	Dykstra et al.	705/38
5,999,915	A	12/1999	Nahan et al.	705/27	6,029,150	A	2/2000	Kravitz	705/39
5,999,917	A	12/1999	Facciani et al.	705/36	6,029,152	A	2/2000	Bublitz et al.	705/40
5,999,933	A	12/1999	Mehta	707/100	6,029,153	A	2/2000	Bauchner et al.	705/42
6,000,049	A	12/1999	Karino et al.	714/724	6,029,154	A	2/2000	Pettitt	705/44
6,002,767	A	12/1999	Kramer	380/24	6,031,904	A	2/2000	An et al.	379/201
6,002,855	A	12/1999	Ladner et al.		6,032,121	A	2/2000	Dietrich et al.	705/8
6,003,006	A	12/1999	Colella et al.	705/2	6,032,129	A	2/2000	Greef et al.	705/27
6,003,007	A	12/1999	DiRienzo	705/4	6,032,133	A	2/2000	Hilt et al.	705/40
6,003,012	A	12/1999	Nick	705/10	6,032,145	A	2/2000	Beall et al.	707/5
6,003,020	A	12/1999	Hazlehurst et al.	706/11	6,035,021	A	3/2000	Katz	
6,004,021	A	12/1999	Rothbarth	364/578	6,035,284	A	3/2000	Straub et al.	705/28
6,006,016	A	12/1999	Faigon et al.		6,035,287	A	3/2000	Stallaert et al.	705/37
6,006,191	A	12/1999	DiRienzo	705/2	6,035,288	A	3/2000	Solomon	705/37
6,006,192	A	12/1999	Cheng et al.	705/7	6,035,289	A	3/2000	Chou et al.	705/37
6,006,196	A	12/1999	Feigin et al.	705/10	6,036,344	A	3/2000	Goldenberg	364/408
6,006,199	A	12/1999	Berlin et al.	705/26	6,036,738	A	3/2000	Shanbrom	55/524
6,006,201	A	12/1999	Berent et al.	705/27	6,038,540	A	3/2000	Krist et al.	705/8
6,006,251	A	12/1999	Toyouchi et al.	709/203	6,038,548	A	3/2000	Kamil	705/35
6,007,459	A	12/1999	Burgess	482/4	6,038,597	A	3/2000	Van Wyngarden	709/219
6,009,406	A	12/1999	Nick	705/10	6,041,308	A	3/2000	Walker et al.	705/14
6,009,408	A	12/1999	Buchanan	705/11	6,041,311	A	3/2000	Chislenko et al.	705/27
6,009,412	A	12/1999	Storey	705/14	6,044,135	A	3/2000	Katz	
6,009,420	A	12/1999	Fagg, III et al.	706/45	6,044,361	A	3/2000	Kalagnanam et al.	705/28
6,010,444	A	1/2000	Honeycutt et al.	588/255	6,044,362	A	3/2000	Neely	705/34
6,012,041	A	1/2000	Brewer et al.	705/28	6,044,363	A	3/2000	Mori et al.	705/37
6,012,043	A	1/2000	Albright et al.	705/36 R	6,044,376	A	3/2000	Kurtzman, II	707/102
6,012,046	A	1/2000	Lupien et al.	705/37	6,044,382	A	3/2000	Martino	707/505
6,012,051	A	1/2000	Sammon, Jr. et al.	706/52	6,047,067	A	4/2000	Rosen	380/24
6,014,633	A	1/2000	DeBusk et al.	705/7	6,047,259	A	4/2000	Campbell et al.	705/3
6,014,634	A	1/2000	Scroggie et al.	705/14	6,047,265	A	4/2000	Sugimori	705/26
6,014,638	A	1/2000	Burge et al.	705/27	6,047,268	A	4/2000	Bartoli et al.	705/35
6,014,641	A	1/2000	Loeb et al.	705/34	6,047,269	A	4/2000	Biffar	705/39
6,014,643	A	1/2000	Minton	705/37	6,047,887	A	4/2000	Rosen	235/379
6,014,644	A	1/2000	Erickson	705/37	6,049,785	A	4/2000	Gifford	705/39
6,014,645	A	1/2000	Cunningham	705/38	6,049,793	A	4/2000	Tomita	706/17
6,014,696	A	1/2000	Araki et al.	709/219	6,052,670	A	4/2000	Johnson	705/27
6,016,344	A	1/2000	Katz	379/260	6,052,671	A	4/2000	Crooks et al.	705/34
6,016,449	A	1/2000	Fischell et al.	607/45	6,052,675	A	4/2000	Checchio	705/44
6,016,465	A	1/2000	Kelly	702/116	6,055,513	A	4/2000	Katz et al.	705/26
6,016,477	A	1/2000	Ehnebuske et al.	705/7	6,055,514	A	4/2000	Wren	705/27
6,016,479	A	1/2000	Taricani, Jr.	705/19	6,055,516	A	4/2000	Johnson et al.	705/27
6,016,483	A	1/2000	Rickard et al.	705/37	6,055,519	A	4/2000	Kennedy et al.	705/80
6,016,484	A	1/2000	Williams et al.	705/39	RE36,693	E	5/2000	Reich	
6,016,504	A	1/2000	Arnold et al.	709/200	6,058,250	A	5/2000	Harwood et al.	
6,018,338	A	1/2000	Greulich et al.	345/333	6,058,373	A	5/2000	Blinn et al.	705/26
6,018,682	A	1/2000	Rise	607/45	6,058,378	A	5/2000	Clark et al.	705/37
6,018,718	A	1/2000	Walker et al.	705/14	6,058,379	A	5/2000	Odom et al.	705/37
6,018,722	A	1/2000	Ray et al.	705/36	6,058,381	A	5/2000	Nelson	705/40
6,018,739	A	1/2000	McCoy et al.	707/102	6,058,426	A	5/2000	Godwin et al.	709/229
6,019,219	A	2/2000	Takahashi		6,061,506	A	5/2000	Wollaston et al.	395/500
6,019,242	A	2/2000	Wysocki et al.	220/571	6,061,593	A	5/2000	Fischell et al.	600/544
6,020,810	A	2/2000	Har-Even	340/328	6,061,660	A	5/2000	Eggleston et al.	705/14
6,021,202	A	2/2000	Anderson et al.	380/25	6,061,665	A	5/2000	Bahreman	705/40
6,021,392	A	2/2000	Lester et al.	705/2	6,061,691	A	5/2000	Fox	707/104
6,021,397	A	2/2000	Jones et al.	705/36	6,061,792	A	5/2000	Simon	713/176
6,021,398	A	2/2000	Ausubel	705/37	6,061,798	A	5/2000	Coley et al.	713/201
6,021,920	A	2/2000	Aldape	221/96	6,063,170	A	5/2000	Deibert	96/224
6,022,315	A	2/2000	Iliff	600/300	6,064,968	A	5/2000	Schanz	705/1
6,023,565	A	2/2000	Lawman et al.		6,064,971	A	5/2000	Hartnett	705/7
6,023,679	A	2/2000	Acebo et al.	705/5	6,064,982	A	5/2000	Puri	705/27
6,023,683	A	2/2000	Johnson et al.	705/26	6,064,987	A	5/2000	Walker et al.	705/38

6,065,819	A	5/2000	Holmes et al.	312/215	6,119,105	A	9/2000	Williams	705/39
6,066,243	A	5/2000	Anderson et al.	204/403	6,119,106	A	9/2000	Mersky et al.	705/40
6,067,416	A	5/2000	Fraser	395/712	6,119,149	A	9/2000	Notani	709/205
6,067,523	A	5/2000	Bair et al.	705/3	6,119,869	A	9/2000	Geiman	209/702
6,067,525	A	5/2000	Johnson et al.	705/10	6,122,625	A	9/2000	Rosen	705/65
6,067,528	A	5/2000	Breed et al.	705/26	6,122,643	A	9/2000	Paik et al.	707/104
6,067,532	A	5/2000	Gebb	705/37	6,122,666	A	9/2000	Beurket et al.	709/226
6,070,145	A	5/2000	Pinsley et al.	705/10	6,122,767	A	9/2000	Ohara	714/822
6,070,150	A	5/2000	Remington et al.	705/34	6,125,349	A	9/2000	Maher	705/1
6,070,250	A	5/2000	Yeager et al.	714/11	6,125,352	A	9/2000	Franklin et al.	705/26
6,072,481	A	6/2000	Matsushita et al.	345/326	6,125,353	A	9/2000	Yagasaki	705/27
6,072,870	A	6/2000	Nguyen et al.	380/24	6,125,356	A	9/2000	Brockman et al.	705/37
6,073,109	A	6/2000	Flores et al.	705/8	6,125,359	A	9/2000	Lautzenheiser et al.	706/60
6,073,124	A	6/2000	Krishnan et al.	705/59	6,125,388	A	9/2000	Reisman	709/218
6,073,138	A	6/2000	de l'Etraz et al.	707/104	6,128,599	A	10/2000	Walker et al.	705/14
6,073,262	A	6/2000	Larkin et al.	714/736	6,128,600	A	10/2000	Imamura et al.	705/27
6,074,269	A	6/2000	Rothbarth et al.	446/268	6,128,603	A	10/2000	Dent et al.	705/40
6,076,023	A	6/2000	Sato	700/214	6,128,624	A	10/2000	Papierniak et al.	707/104
6,076,066	A	6/2000	DiRienzo et al.	705/4	6,131,087	A	10/2000	Luke et al.	705/26
6,076,080	A	6/2000	Morscheck et al.	705/400	6,131,088	A	10/2000	Hill	705/27
6,076,108	A	6/2000	Courts et al.	709/227	6,131,099	A	10/2000	Johnson et al.	707/104
6,078,889	A	6/2000	Boucher et al.	705/1	6,134,318	A	10/2000	O'Neil	379/266
6,078,891	A	6/2000	Riordan et al.	705/10	6,134,326	A	10/2000	Micali	380/30
6,078,905	A	6/2000	Pich-LeWinter	705/36	6,134,533	A	10/2000	Shell	705/26
6,078,906	A	6/2000	Huberman	705/37	6,134,534	A	10/2000	Walker et al.	705/26
6,084,581	A	7/2000	Hunt	345/302	6,134,535	A	10/2000	Belzberg	705/37
6,085,169	A	7/2000	Walker et al.	705/26	6,134,663	A	10/2000	Nakamura et al.	713/201
6,085,170	A	7/2000	Tsukuda	705/26	6,137,884	A	10/2000	Micali	380/30
6,085,176	A	7/2000	Woolston	705/37	6,138,105	A	10/2000	Walker et al.	705/10
6,085,178	A	7/2000	Bigus et al.	705/80	6,138,107	A	10/2000	Elgamal	705/39
6,085,220	A	7/2000	Courts et al.	709/201	6,138,119	A	10/2000	Hall et al.	707/9
6,085,976	A	7/2000	Sehr	235/384	6,138,558	A	10/2000	Harrington	100/102
6,088,626	A	7/2000	Lilly et al.	700/100	6,140,922	A	10/2000	Kakou	
6,088,683	A	7/2000	Jalili	705/26	6,141,666	A	10/2000	Tobin	707/513
6,088,688	A	7/2000	Crooks et al.	705/412	6,141,750	A	10/2000	Micali	713/168
6,088,797	A	7/2000	Rosen	713/173	6,144,944	A	11/2000	Kurtzman, II	705/14
6,091,417	A	7/2000	Lefkowitz	345/357	6,144,960	A	11/2000	Okada et al.	707/10
6,091,857	A	7/2000	Shaw et al.	382/251	6,144,988	A	11/2000	Kappel	709/202
6,092,050	A	7/2000	Lungren et al.	705/10	6,148,065	A	11/2000	Katz	379/882
6,092,053	A	7/2000	Boesch et al.	705/26	6,148,297	A	11/2000	Swor et al.	707/3
6,092,056	A	7/2000	Tull, Jr. et al.	705/36	6,148,331	A	11/2000	Parry	709/218
6,097,995	A	8/2000	Tipton et al.	700/266	6,149,627	A	11/2000	Uber, III	604/151
6,098,051	A	8/2000	Lupien et al.	705/37	6,151,565	A	11/2000	Lobley et al.	703/2
6,098,106	A	8/2000	Philyaw et al.	709/238	6,151,582	A	11/2000	Huang et al.	705/8
6,101,410	A	8/2000	Panescu et al.	600/522	6,151,598	A	11/2000	Shaw et al.	707/3
6,101,480	A	8/2000	Conmy et al.	705/9	6,151,600	A	11/2000	Dedrick	707/10
6,101,485	A	8/2000	Fortenberry et al.	705/27	6,151,643	A	11/2000	Cheng et al.	710/36
6,102,958	A	8/2000	Meystel et al.	703/2	6,151,707	A	11/2000	Hecksel et al.	717/11
6,104,229	A	8/2000	Lien	327/434	6,154,736	A	11/2000	Chickering et al.	706/59
6,104,868	A	8/2000	Peters et al.		6,154,879	A	11/2000	Pare, Jr. et al.	902/3
6,105,003	A	8/2000	Morohashi et al.	705/26	6,157,721	A	12/2000	Shear et al.	380/255
6,105,005	A	8/2000	Fuhrer	705/35	6,157,915	A	12/2000	Bhaskaran et al.	705/7
6,105,007	A	8/2000	Norris	705/38	6,157,917	A	12/2000	Barber	705/26
6,105,008	A	8/2000	Davis et al.	705/41	6,157,923	A	12/2000	Ivler et al.	707/3
6,107,768	A	8/2000	Ouchi et al.		6,157,924	A	12/2000	Austin	707/10
6,108,635	A	8/2000	Herren et al.	705/2	6,157,941	A	12/2000	Verkler et al.	709/202
6,108,639	A	8/2000	Walker et al.	705/26	6,160,204	A	12/2000	Steffens	800/284
6,108,656	A	8/2000	Durst et al.	707/10	6,161,098	A	12/2000	Wallman	705/36
6,108,665	A	8/2000	Bair et al.	707/104	6,161,099	A	12/2000	Harrington et al.	705/37
6,109,774	A	8/2000	Holmes et al.		6,161,102	A	12/2000	Yanagihara et al.	707/3
6,110,848	A	8/2000	Bouchette	442/384	6,163,604	A	12/2000	Baulier et al.	379/189
6,112,181	A	8/2000	Shear et al.	705/1	6,164,537	A	12/2000	Mariani et al.	235/383
6,112,189	A	8/2000	Rickard et al.	705/37	6,164,549	A	12/2000	Richards	235/492
6,112,190	A	8/2000	Fletcher et al.	705/38	6,167,378	A	12/2000	Webber, et al.	705/8
6,112,502	A	9/2000	Frederick et al.	53/411	6,167,383	A	12/2000	Henson	705/26
6,113,495	A	9/2000	Walker et al.	463/42	6,167,386	A	12/2000	Brown	705/37
6,113,540	A	9/2000	Iliff	600/300	6,169,488	B1	1/2001	Ketler	340/632
6,114,946	A	9/2000	Michels		6,169,992	B1	1/2001	Beall et al.	707/103
6,115,690	A	9/2000	Wong	705/7	6,170,002	B1	1/2001	Ouchi	709/206
6,115,691	A	9/2000	Ulwick	705/7	6,175,921	B1	1/2001	Rosen	713/173
6,115,696	A	9/2000	Auger	705/28	6,178,025	B1	1/2001	Hardcastle et al.	359/177
6,115,698	A	9/2000	Tuck et al.	705/37	6,178,407	B1	1/2001	Lotvin et al.	705/14
6,116,461	A	9/2000	Broadfield et al.	221/98	6,178,442	B1	1/2001	Yamazaki	709/206
6,118,938	A	9/2000	Lawman et al.		6,178,546	B1	1/2001	McIntyre	717/3
6,119,074	A	9/2000	Sarangapani	702/185	6,182,053	B1	1/2001	Rauber et al.	705/28
6,119,099	A	9/2000	Walker et al.	705/16	6,182,060	B1	1/2001	Hedgcock et al.	707/1
6,119,101	A	9/2000	Peckover	705/26	6,182,123	B1	1/2001	Filepp et al.	709/217
6,119,103	A	9/2000	Basch et al.	705/35	6,182,275	B1	1/2001	Beelitz et al.	717/1
6,119,104	A	9/2000	Brumbelow et al.	705/35	6,185,450	B1	2/2001	Seguine et al.	600/509

6,185,573	B1	2/2001	Angelucci et al.	707/104
6,185,665	B1	2/2001	Owada et al.	711/170
6,185,683	B1	2/2001	Ginter et al.	713/176
6,188,290	B1	2/2001	Fallisgaard et al.	331/18
6,188,988	B1	2/2001	Barry et al.	705/3
6,188,994	B1	2/2001	Egendorf	705/40
6,189,008	B1	2/2001	Easty et al.	707/10
6,192,354	B1	2/2001	Bigus et al.	706/46
6,195,649	B1	2/2001	Gifford	705/75
6,199,050	B1	3/2001	Alaia et al.	705/37
6,199,051	B1	3/2001	Gifford	705/75
6,199,079	B1	3/2001	Gupta et al.	707/507
6,199,114	B1	3/2001	White et al.	709/229
6,199,193	B1	3/2001	Oyagi et al.	717/1
6,199,204	B1	3/2001	Donohue	717/11
6,202,038	B1	3/2001	Wegerich et al.	702/183
6,202,051	B1	3/2001	Woolston	705/27
6,202,054	B1	3/2001	Lawlor et al.	705/42
6,204,056	B1	3/2001	Barnes et al.	435/392
6,205,435	B1	3/2001	Biffar	705/41
6,205,437	B1	3/2001	Gifford	705/75
6,206,282	B1	3/2001	Hayes, Sr. et al.	235/375
6,206,829	B1	3/2001	Iliff	600/300
6,209,019	B1	3/2001	Okataku et al.	709/107
6,212,280	B1	4/2001	Howard, Jr. et al.	380/279
6,212,303	B1	4/2001	Doran et al.	382/245
6,212,634	B1	4/2001	Geer, Jr. et al.	713/156
6,212,677	B1	4/2001	Ohkubo et al.	717/7
6,216,108	B1	4/2001	LeVander	705/7
6,216,114	B1	4/2001	Alaia et al.	705/37
6,217,525	B1	4/2001	Medema et al.	600/508
6,219,650	B1	4/2001	Friend et al.	705/36
6,219,652	B1	4/2001	Carter et al.	705/59
6,219,653	B1	4/2001	O'Neill et al.	705/400
6,219,736	B1	4/2001	Klingman	710/129
6,219,930	B1	4/2001	Reid	33/562
6,220,510	B1	4/2001	Everett et al.	235/380
6,223,163	B1	4/2001	Van Luchene	705/1
6,223,164	B1	4/2001	Seare et al.	705/2
6,223,167	B1	4/2001	Alaia et al.	705/37
6,223,215	B1	4/2001	Hunt et al.	709/217
6,225,995	B1	5/2001	Jacobs et al.	345/335
6,226,214	B1	5/2001	Choi	
6,226,617	B1	5/2001	Suzuki et al.	705/1
6,226,618	B1	5/2001	Downs et al.	705/1
6,226,750	B1	5/2001	Trieger	713/201
6,230,142	B1	5/2001	Benigno et al.	705/3
6,230,146	B1	5/2001	Alaia et al.	705/37
6,230,147	B1	5/2001	Alaia et al.	705/37
6,230,148	B1	5/2001	Pare, Jr. et al.	705/40
6,230,162	B1	5/2001	Kumar et al.	707/104
6,233,581	B1	5/2001	Rambaud et al.	707/102
6,233,609	B1	5/2001	Mittal	709/219
6,236,975	B1	5/2001	Boe et al.	705/7
6,236,980	B1	5/2001	Reese	705/36
6,237,786	B1	5/2001	Ginter et al.	213/153
6,240,185	B1	5/2001	Van Wie et al.	380/232
6,240,396	B1	5/2001	Walker et al.	705/26
H1960	H	6/2001	Conrad et al.	
6,243,691	B1	6/2001	Fisher et al.	705/37
6,246,972	B1	6/2001	Klimasauskas	703/2
6,246,996	B1	6/2001	Stein et al.	705/26
6,246,997	B1	6/2001	Cybul et al.	705/27
6,247,004	B1	6/2001	Moukheibir	706/46
6,247,044	B1	6/2001	Gosling et al.	709/203
6,247,592	B1	6/2001	Racicot et al.	206/366
6,248,985	B1	6/2001	Tomasello	219/679
6,249,772	B1	6/2001	Walker et al.	705/26
6,249,773	B1	6/2001	Allard et al.	705/26
6,249,775	B1	6/2001	Freeman et al.	705/36
6,249,912	B1	6/2001	Blandy	717/9
6,250,465	B1	6/2001	Daniels et al.	206/370
6,252,510	B1	6/2001	Dungan	340/632
6,253,186	B1	6/2001	Pendleton, Jr.	705/2
6,253,187	B1	6/2001	Fox	705/10
6,253,193	B1	6/2001	Ginter et al.	705/57
6,253,205	B1	6/2001	Quarato et al.	707/103
6,253,339	B1	6/2001	Tse et al.	714/47
6,256,536	B1	7/2001	Kramer	607/9
6,256,613	B1	7/2001	Falchuk et al.	705/2
6,256,771	B1	7/2001	O'Neil et al.	717/1
6,260,047	B1	7/2001	Fox et al.	707/104
6,260,427	B1	7/2001	Jones et al.	
6,263,255	B1	7/2001	Tan et al.	700/121
6,263,313	B1	7/2001	Milsted et al.	705/1
6,266,172	B1	7/2001	Zirngibl	359/189
6,266,442	B1	7/2001	Laumeyer et al.	382/190
6,266,651	B1	7/2001	Woolston	705/27
6,266,652	B1	7/2001	Godin et al.	705/37
6,266,659	B1	7/2001	Nadkarni	707/3
6,267,670	B1	7/2001	Walker et al.	463/17
6,269,275	B1	7/2001	Slade	700/90
6,269,343	B1	7/2001	Pallakoff	705/26
6,269,348	B1	7/2001	Pare, Jr. et al.	705/39
6,270,456	B1	8/2001	Iliff	600/300
6,272,127	B1	8/2001	Golden et al.	370/352
6,272,482	B1	8/2001	McKee et al.	706/47
6,272,506	B1	8/2001	Bell	707/507
6,275,268	B1	8/2001	Ellis et al.	348/564
6,275,818	B1	8/2001	Subramanian et al.	707/2
6,275,941	B1	8/2001	Saito et al.	713/201
6,279,042	B1	8/2001	Ouchi	709/240
6,279,112	B1	8/2001	O'Toole, Jr. et al.	713/201
6,282,276	B1	8/2001	Felger	379/144
6,282,522	B1	8/2001	Davis et al.	705/41
6,282,531	B1	8/2001	Haughton et al.	706/50
6,283,366	B1	9/2001	Hills et al.	235/379
6,285,722	B1	9/2001	Banwell et al.	375/354
6,285,987	B1	9/2001	Roth et al.	705/27
6,285,989	B1	9/2001	Shoham	705/37
6,286,002	B1	9/2001	Axaopoulos et al.	707/10
6,286,005	B1	9/2001	Cannon	707/100
6,286,139	B1	9/2001	Decinque	725/5
6,289,252	B1	9/2001	Wilson et al.	700/7
6,289,318	B1	9/2001	Barber	705/14
6,289,390	B1	9/2001	Kavner	709/310
6,289,462	B1	9/2001	McNabb et al.	713/201
6,292,547	B1	9/2001	Katz	
6,292,569	B1	9/2001	Shear et al.	380/255
6,292,784	B1	9/2001	Martin et al.	705/11
6,292,786	B1	9/2001	Deaton et al.	705/14
6,292,787	B1	9/2001	Scott et al.	705/36
6,292,894	B1	9/2001	Chipman et al.	713/168
6,295,513	B1	9/2001	Thackston	703/1
6,298,328	B1	10/2001	Healy et al.	705/10
6,298,329	B1	10/2001	Walker et al.	705/14
6,298,331	B1	10/2001	Walker et al.	705/15
6,301,574	B1	10/2001	Thomas et al.	707/1
6,302,461	B1	10/2001	Debras et al.	294/681
6,304,848	B1	10/2001	Singer	705/3
6,304,857	B1	10/2001	Heindel et al.	705/34
6,304,861	B1	10/2001	Ferguson	706/10
6,304,915	B1	10/2001	Nguyen et al.	709/250
6,306,117	B1	10/2001	Uber, III	604/151
6,307,958	B1	10/2001	Deaton et al.	382/139
6,308,138	B1	10/2001	Jones et al.	702/34
6,311,144	B1	10/2001	Abu El Ata	703/2
6,314,451	B1	11/2001	Landsman et al.	709/203
6,314,468	B1	11/2001	Murphy et al.	709/236
6,315,113	B1	11/2001	Britton et al.	206/210
6,317,029	B1	11/2001	Fleeter	
6,317,723	B1	11/2001	Walker et al.	705/16
6,317,727	B1	11/2001	May	705/37
6,317,728	B1	11/2001	Kane	705/37
6,317,731	B1	11/2001	Luciano	706/21
6,317,761	B1	11/2001	Landsman et al.	707/513
6,317,783	B1	11/2001	Freishtat et al.	709/218
6,317,900	B1	11/2001	Braxton	4/483
6,321,224	B1	11/2001	Beall et al.	707/5
6,321,231	B1	11/2001	Jebens et al.	707/104
6,321,375	B1	11/2001	Blandy	717/4
6,323,894	B1	11/2001	Katz	348/15
6,324,522	B2	11/2001	Peterson et al.	705/28
6,324,524	B1	11/2001	Lent et al.	705/38
6,324,525	B1	11/2001	Kramer et al.	705/40
6,324,536	B1	11/2001	Rofrano	707/5
6,324,538	B1	11/2001	Wesinger, Jr. et al.	707/10
6,324,541	B1	11/2001	de l'Etraz et al.	707/104

6,324,672	B1	11/2001	Lawman et al.	716/1
6,327,541	B1	12/2001	Pitchford et al.	702/62
6,327,583	B1	12/2001	Kindo	706/45
6,327,619	B1	12/2001	Blumenau	709/224
6,328,217	B1	12/2001	Everett et al.	235/492
6,330,525	B1	12/2001	Hays et al.	702/183
6,330,546	B1	12/2001	Gopinathan et al.	705/35
6,330,548	B1	12/2001	Walker et al.	705/38
6,330,551	B1	12/2001	Burchetta et al.	705/80
6,332,129	B1	12/2001	Walker et al.	705/26
6,332,146	B1	12/2001	Jebens et al.	707/104
6,334,112	B1	12/2001	Walker et al.	705/23
6,334,113	B1	12/2001	Walker et al.	705/23
6,334,114	B1	12/2001	Jacobs et al.	705/26
6,334,192	B1	12/2001	Karpf	714/1
6,336,095	B1	1/2002	Rosen	705/1
6,336,104	B1	1/2002	Walker et al.	705/38
6,338,007	B1	1/2002	Broadfield et al.	700/231
6,338,045	B1	1/2002	Pappas	705/29
6,338,066	B1	1/2002	Martin et al.	707/10
6,338,093	B1	1/2002	DiRienzo	709/238
6,339,732	B1	1/2002	Phoon et al.	700/237
6,341,353	B1	1/2002	Herman et al.	713/201
6,343,277	B1	1/2002	Gaus et al.	705/37
6,343,278	B1	1/2002	Jain et al.	705/37
6,343,310	B1	1/2002	DiRienzo	709/200
6,344,638	B1	2/2002	Tomasello	219/770
6,345,090	B1	2/2002	Walker et al.	
6,345,256	B1	2/2002	Milsted et al.	705/1
6,349,134	B1	2/2002	Katz	
6,349,237	B1	2/2002	Koren et al.	700/96
6,349,288	B1	2/2002	Barber	705/26
6,349,324	B1	2/2002	Tokoro	709/200
6,351,735	B1	2/2002	Deaton et al.	705/14
6,354,490	B1	3/2002	Weiss et al.	235/379
6,356,874	B1	3/2002	Øhrn	705/6
6,356,878	B1	3/2002	Walker et al.	705/26
6,356,921	B1	3/2002	Kumar et al.	
6,356,945	B1	3/2002	Shaw et al.	709/231
6,357,043	B1	3/2002	Ellis et al.	725/61
6,360,249	B1	3/2002	Courts et al.	709/203
6,360,273	B1	3/2002	Beurket et al.	709/244
6,363,358	B1	3/2002	Palmer et al.	705/28
6,363,393	B1	3/2002	Ribitzky	707/102
6,363,411	B1	3/2002	Dugan et al.	709/202
6,363,488	B1	3/2002	Ginter et al.	713/201
6,366,829	B1	4/2002	Wallace	700/236
6,366,890	B1	4/2002	Usrey	705/10
6,366,967	B1	4/2002	Wagner	710/33
6,367,377	B1	4/2002	Gawley et al.	100/49
6,370,510	B1	4/2002	McGovern et al.	705/1
6,370,567	B1	4/2002	Ouchi	709/206
6,373,950	B1	4/2002	Rowney	380/255
6,374,240	B1	4/2002	Walker et al.	707/5
6,377,618	B1	4/2002	Prasad et al.	375/225
6,377,927	B1	4/2002	Loghmani et al.	704/275
6,377,935	B1	4/2002	Deaton et al.	705/14
6,377,937	B1	4/2002	Paskowitz	705/26
6,377,940	B2	4/2002	Tilfors et al.	705/37
6,377,986	B1	4/2002	Philyaw et al.	709/219
6,378,075	B1	4/2002	Goldstein et al.	713/200
6,381,582	B1	4/2002	Walker et al.	705/26
6,381,583	B1	4/2002	Kenney	705/26
6,381,584	B1	4/2002	Ogram	705/26
6,381,587	B1	4/2002	Guzelsu	705/40
6,381,632	B1	4/2002	Lowell	709/203
6,384,744	B1	5/2002	Philyaw et al.	341/50
6,385,201	B1	5/2002	Iwata	370/400
6,385,483	B1	5/2002	Uber, III et al.	600/431
6,385,595	B1	5/2002	Kolling et al.	705/40
6,385,596	B1	5/2002	Wiser et al.	705/51
6,385,642	B1	5/2002	Chlan et al.	709/203
6,385,646	B1	5/2002	Brown et al.	709/217
6,385,723	B1	5/2002	Richards	713/160
6,386,386	B1	5/2002	George	220/526
6,386,451	B1	5/2002	Sehr	235/384
6,389,402	B1	5/2002	Ginter et al.	705/51
6,389,403	B1	5/2002	Dorak, Jr.	705/52
6,389,538	B1	5/2002	Gruse et al.	713/194
6,389,541	B1	5/2002	Patterson	713/201
6,393,409	B2	5/2002	Young et al.	705/37
6,397,193	B1	5/2002	Walker et al.	705/16
6,397,197	B1	5/2002	Gindlesperger	705/37
6,397,198	B1	5/2002	Hoffman et al.	705/44
6,398,245	B1	6/2002	Gruse et al.	280/228
6,401,078	B1	6/2002	Roberts et al.	705/28
6,401,080	B1	6/2002	Bigus et al.	705/37
6,401,111	B1	6/2002	Dan et al.	709/204
6,404,928	B1	6/2002	Shaw et al.	382/232
6,405,174	B1	6/2002	Walker et al.	705/14
6,405,180	B2	6/2002	Tilfors et al.	705/37
6,405,181	B2	6/2002	Lent et al.	705/38
6,408,215	B1	6/2002	Anderson	700/28
6,408,281	B1	6/2002	Shell et al.	705/26
6,408,283	B1	6/2002	Alaia et al.	705/37
6,408,284	B1	6/2002	Hilt et al.	705/40
6,411,696	B1	6/2002	Iverson et al.	
6,415,180	B1	7/2002	Kramer et al.	607/9
6,415,265	B1	7/2002	Shell et al.	705/26
6,415,269	B1	7/2002	Dinwoodie	705/37
6,415,271	B1	7/2002	Turk et al.	705/39
6,415,320	B1	7/2002	Hess et al.	709/219
6,418,415	B1	7/2002	Walker et al.	705/26
6,418,421	B1	7/2002	Hurtado et al.	705/54
6,418,470	B2	7/2002	Blumenau	709/224
6,421,652	B2	7/2002	Loeb et al.	705/14
6,421,653	B1	7/2002	May	705/37
6,421,667	B1	7/2002	Codd et al.	707/4
6,421,781	B1	7/2002	Fox et al.	713/201
6,424,703	B1	7/2002	Katz	
6,424,949	B1	7/2002	Deaton et al.	705/14
6,425,006	B1	7/2002	Chari et al.	709/224
6,427,140	B1	7/2002	Ginter et al.	705/80
6,430,542	B1	8/2002	Moran	705/36
6,430,549	B1	8/2002	Gershfield et al.	707/2
6,430,567	B2	8/2002	Burridge	707/102
6,430,607	B1	8/2002	Kavner	709/217
6,434,223	B2	8/2002	Katz	
6,434,531	B1	8/2002	Lancelot et al.	705/3
6,438,527	B1	8/2002	Powar	705/40
6,442,418	B1	8/2002	Evans, III et al.	600/431
6,442,513	B1	8/2002	Cheng et al.	703/12
6,442,594	B1	8/2002	Ouchi	709/206
6,442,663	B1	8/2002	Sun et al.	711/202
6,442,690	B1	8/2002	Howard, Jr. et al.	713/175
6,446,865	B1	9/2002	Holt et al.	235/382
6,448,980	B1	9/2002	Kumar et al.	345/745
6,449,346	B1	9/2002	Katz	
6,449,367	B2	9/2002	Van Wie et al.	380/232
6,449,599	B1	9/2002	Payne et al.	705/27
6,450,356	B1	9/2002	Alexander et al.	
6,452,924	B1	9/2002	Golden et al.	370/352
6,453,297	B1	9/2002	Burks et al.	705/3
6,453,348	B1	9/2002	Barnier et al.	709/225
6,456,986	B1	9/2002	Boardman et al.	705/400
6,457,027	B1	9/2002	Orr	707/513
6,457,879	B1	10/2002	Thurlow et al.	
6,460,020	B1	10/2002	Pool et al.	705/26
6,460,072	B1	10/2002	Arnold et al.	709/203
6,462,761	B1	10/2002	Hasuo	345/838
6,463,418	B1	10/2002	Todd	705/26
6,463,421	B2	10/2002	Junger	705/28
6,466,663	B1	10/2002	Ravenscroft et al.	379/265
6,466,914	B2	10/2002	Mitsuoka et al.	705/9
6,466,915	B1	10/2002	Suzuki et al.	705/14
6,466,919	B1	10/2002	Walker et al.	705/37
6,466,967	B2	10/2002	Landsman et al.	709/203
6,470,303	B2	10/2002	Kidd et al.	703/8
6,470,322	B1	10/2002	Walker et al.	705/16
6,470,323	B1	10/2002	Suzuki et al.	705/27
6,473,744	B1	10/2002	Tuck et al.	705/412
6,473,748	B1	10/2002	Archer	706/45
6,473,752	B1	10/2002	Fleming, III	707/4
6,477,578	B1	11/2002	Mhoon	709/229
6,480,894	B1	11/2002	Courts et al.	709/227
6,482,156	B2	11/2002	Iliff	600/300
6,483,895	B2	11/2002	Bixler et al.	379/671
6,484,149	B1	11/2002	Jammes et al.	705/26

6,484,153	B1	11/2002	Walker et al.	705/38
6,484,158	B1	11/2002	Johnson et al.	707/2
6,484,165	B1	11/2002	Beall et al.	707/3
6,484,189	B1	11/2002	Gerlach, Jr. et al.	
6,486,895	B1	11/2002	Robertson et al.	345/776
6,488,211	B1	12/2002	Everett et al.	235/492
6,488,675	B1	12/2002	Radford et al.	604/540
6,490,350	B2	12/2002	McDuff et al.	
6,490,358	B1	12/2002	Geer, Jr. et al.	380/286
6,490,567	B1	12/2002	Gregory	705/39
6,490,587	B2	12/2002	Easty et al.	707/10
6,493,682	B1	12/2002	Horrigan et al.	705/36
6,493,686	B1	12/2002	Francone et al.	706/12
6,496,932	B1	12/2002	Trieger	713/168
6,499,018	B1	12/2002	Alaia et al.	705/37
6,499,270	B2	12/2002	Peroni et al.	53/53
6,502,096	B1	12/2002	Siefert	707/10
6,505,172	B1	1/2003	Johnson et al.	705/27
6,505,174	B1	1/2003	Keiser et al.	705/37
6,505,773	B1	1/2003	Palmer et al.	235/380
6,507,822	B1	1/2003	Walker et al.	705/20
6,507,823	B1	1/2003	Nel	705/26
6,510,418	B1	1/2003	Case et al.	705/26
6,512,415	B1	1/2003	Katz	
6,513,014	B1	1/2003	Walker et al.	705/10
6,516,303	B1	2/2003	Wallman	705/36
6,516,318	B2	2/2003	Nakamura et al.	707/10
6,516,338	B1	2/2003	Landsman et al.	709/203
6,519,572	B1	2/2003	Riordan et al.	705/16
6,519,600	B1	2/2003	Siefert	707/10
6,526,449	B1	2/2003	Philyaw et al.	709/238
6,529,908	B1	3/2003	Piett et al.	707/10
6,535,294	B1	3/2003	Arledge, Jr. et al.	358/115
6,535,913	B2	3/2003	Mittal et al.	709/219
6,539,404	B1	3/2003	Ouchi	707/500
6,542,874	B1	4/2003	Walker et al.	705/23
6,546,005	B1	4/2003	Berkley et al.	370/353
6,546,545	B1	4/2003	Honarvar et al.	717/100
6,549,891	B1	4/2003	Rauber et al.	705/28
6,552,723	B1	4/2003	Duluk, Jr. et al.	345/419
6,553,108	B1	4/2003	Felger	379/144
6,553,346	B1	4/2003	Walker et al.	705/1
6,553,407	B1	4/2003	Ouchi	709/206
6,556,977	B1	4/2003	Lapointe et al.	706/15
6,557,054	B2	4/2003	Reisman	710/33
6,560,549	B2	5/2003	Fonkalsrud et al.	702/41
6,560,569	B1	5/2003	Abu El Ata	703/2
6,560,581	B1	5/2003	Fox et al.	705/51
6,564,240	B2	5/2003	Waldo et al.	709/104
6,565,000	B2	5/2003	Sehr	235/384
6,567,783	B1	5/2003	Notani et al.	705/9
6,567,791	B2	5/2003	Lent et al.	705/38
6,567,820	B1	5/2003	Scheifler et al.	707/103
6,567,824	B2	5/2003	Fox	
6,570,967	B2	5/2003	Katz	
6,571,149	B1	5/2003	Hahn-Carlson	700/216
6,571,251	B1	5/2003	Koski et al.	707/102
6,574,314	B1	6/2003	Martino	
6,574,607	B1	6/2003	Carter et al.	705/26
6,574,609	B1	6/2003	Downs et al.	705/50
6,575,372	B1	6/2003	Everett et al.	235/492
6,578,012	B1	6/2003	Storey	705/14
6,578,024	B2	6/2003	Kuypers	707/1
6,581,042	B2	6/2003	Pare, Jr. et al.	705/40
6,582,304	B2	6/2003	Walker et al.	463/17
6,582,310	B1	6/2003	Walker et al.	463/42
6,584,445	B2	6/2003	Papageorge	705/3
6,584,448	B1	6/2003	Laor	705/14
6,587,830	B2	7/2003	Singer	705/3
6,587,837	B1	7/2003	Spagna et al.	705/26
6,594,643	B1	7/2003	Freeny, Jr.	705/37
6,594,644	B1	7/2003	Van Dusen	705/39
6,594,692	B1	7/2003	Reisman	709/219
6,594,705	B1	7/2003	Philyaw	709/238
6,598,024	B1	7/2003	Walker et al.	705/16
6,598,029	B1	7/2003	Johnson et al.	705/37
6,599,324	B2	7/2003	Saito et al.	715/513
6,601,034	B1	7/2003	Honarvar et al.	705/7
6,601,036	B1	7/2003	Walker et al.	705/10
6,601,037	B1	7/2003	Kolls	705/14
6,601,038	B1	7/2003	Kolls	705/14
6,601,039	B1	7/2003	Kolls	705/14
6,601,040	B1	7/2003	Kolls	705/14
6,601,043	B1	7/2003	Purcell	705/26
6,601,044	B1	7/2003	Wallman	705/36
6,601,761	B1	8/2003	Katis	235/379
6,604,085	B1	8/2003	Kolls	705/14
6,604,086	B1	8/2003	Kolls	705/14
6,604,087	B1	8/2003	Kolls	705/14
6,604,088	B1	8/2003	Landom et al.	705/26
6,604,090	B1	8/2003	Tackett et al.	706/11
6,604,127	B2	8/2003	Murphy et al.	709/203
6,606,479	B2	8/2003	Cook et al.	434/350
6,606,602	B1	8/2003	Kolls	705/14
6,606,603	B1	8/2003	Joseph et al.	705/26
6,606,605	B1	8/2003	Kolls	705/26
6,608,628	B1	8/2003	Ross et al.	345/619
6,609,036	B1	8/2003	Bickford	700/30
6,609,102	B2	8/2003	Kolls	705/14
6,609,103	B1	8/2003	Kolls	705/14
6,609,109	B1	8/2003	Bradley et al.	705/35
6,609,120	B1	8/2003	Honarvar et al.	707/3
6,609,658	B1	8/2003	Sehr	235/384
6,609,659	B2	8/2003	Sehr	235/384
6,611,807	B1	8/2003	Bernheim et al.	705/4
6,611,810	B1	8/2003	Kolls	705/14
6,611,812	B2	8/2003	Hurtado et al.	705/26
6,611,818	B1	8/2003	Mersky et al.	705/40
6,611,862	B2	8/2003	Reisman	709/217
6,615,073	B1	9/2003	Panescu et al.	600/509
6,615,183	B1	9/2003	Kolls	705/26
6,615,268	B1	9/2003	Philyaw et al.	709/229
6,618,484	B1	9/2003	Weber et al.	380/232
6,618,707	B1	9/2003	Gary	705/37
6,618,746	B2	9/2003	Desai et al.	709/204
6,622,124	B1	9/2003	Kolls	705/14
6,622,165	B1	9/2003	Philyaw	709/217
6,629,079	B1	9/2003	Spiegel et al.	705/26
6,629,133	B1	9/2003	Philyaw et al.	709/217
6,629,154	B1	9/2003	Jones et al.	709/330
6,631,404	B1	10/2003	Philyaw	709/217
6,633,795	B1	10/2003	Suzuki et al.	700/213
6,636,833	B1	10/2003	Flitcroft et al.	705/1
6,636,892	B1	10/2003	Philyaw	709/217
6,636,896	B1	10/2003	Philyaw	709/238
6,641,532	B2	11/2003	Iliff	600/300
6,643,623	B1	11/2003	Kolls	705/14
6,643,624	B2	11/2003	Philippe et al.	705/26
6,643,692	B1	11/2003	Philyaw et al.	709/219
6,647,384	B2	11/2003	Gilmour	707/5
6,654,786	B1	11/2003	Fox et al.	709/203
6,654,793	B1	11/2003	Wollrath et al.	709/217
6,658,106	B1	12/2003	Atkinson et al.	
6,658,464	B2	12/2003	Reisman	709/219
6,658,568	B1	12/2003	Ginter et al.	713/193
6,659,354	B2	12/2003	Everett et al.	235/492
6,662,166	B2	12/2003	Pare, Jr. et al.	705/39
6,664,860	B2	12/2003	Fallisgaard et al.	331/18
6,669,832	B1	12/2003	Saito et al.	205/26
6,678,360	B1	1/2004	Katz	379/882
6,678,669	B2	1/2004	Lapointe et al.	706/15
6,681,010	B1	1/2004	Anderson et al.	
6,684,197	B1	1/2004	Kolls	705/41
6,684,269	B2	1/2004	Wagner	710/33
RE38,432	E	2/2004	Fai et al.	434/350
6,687,737	B2	2/2004	Landsman et al.	709/203
6,688,522	B1	2/2004	Philyaw et al.	
6,688,888	B1	2/2004	Ho et al.	434/322
6,690,794	B1	2/2004	Terao et al.	380/22
6,691,147	B1	2/2004	Arunkumar et al.	709/200
6,694,300	B1	2/2004	Walker et al.	705/14
6,694,356	B1	2/2004	Philyaw	709/217
6,694,365	B1	2/2004	Wyngarden	709/225
6,694,387	B2	2/2004	Wagner	710/33
6,697,783	B1	2/2004	Brinkman et al.	705/3
6,697,784	B2	2/2004	Bacon et al.	705/9
6,697,861	B2	2/2004	Barnier et al.	709/225
6,697,949	B1	2/2004	Philyaw et al.	713/201

6,701,315	B1	3/2004	Austin	707/10
6,701,354	B1	3/2004	Philyaw et al.	709/219
6,701,369	B1	3/2004	Philyaw	709/229
6,704,713	B1	3/2004	Brett	705/37
6,704,749	B2	3/2004	Palmer et al.	
6,704,756	B2	3/2004	Wollrath et al.	707/206
6,708,208	B1	3/2004	Philyaw	709/223
6,710,786	B1	3/2004	Jacobs et al.	345/744
6,711,256	B1	3/2004	O'Neil	
6,714,196	B2	3/2004	McCormack et al.	345/423
6,714,919	B1	3/2004	Findley	705/44
6,725,209	B1	4/2004	Iliff	706/45
6,725,260	B1	4/2004	Philyaw	709/220
6,725,447	B1	4/2004	Gilman et al.	717/105
6,727,294	B2	4/2004	Kanayama et al.	523/136
6,728,737	B2	4/2004	Wollrath et al.	707/206
6,728,947	B1	4/2004	Bengston	717/103
6,731,625	B1	5/2004	Eastep et al.	370/352
6,731,971	B2	5/2004	Evans, III et al.	600/431
6,732,161	B1	5/2004	Hess et al.	709/219
6,735,574	B2	5/2004	Bull	705/32
6,735,596	B2	5/2004	Corynen	707/102
6,736,325	B1	5/2004	Peacham	235/492
6,738,749	B1	5/2004	Chasko	705/17
6,739,947	B1	5/2004	Molnar	451/8
6,742,120	B1	5/2004	Markakis et al.	713/184
6,742,127	B2	5/2004	Fox et al.	713/201
6,742,715	B2	6/2004	Everett et al.	235/492
6,744,894	B1	6/2004	Saito	380/277
6,745,234	B1	6/2004	Philyaw et al.	709/217
6,745,259	B2	6/2004	Wagner	710/33
6,748,376	B1	6/2004	Beall et al.	707/3
6,754,636	B1	6/2004	Walker et al.	705/26
6,754,641	B2	6/2004	Kolls	705/44
6,754,698	B1	6/2004	Philyaw et al.	709/217
6,757,663	B1	6/2004	Rogers et al.	705/24
6,757,710	B2	6/2004	Reed	709/203
6,758,398	B1	7/2004	Philyaw et al.	235/454
6,760,736	B2	7/2004	Waldo et al.	707/206
6,761,319	B2	7/2004	Peachman et al.	235/492
6,763,336	B1	7/2004	Kolls	705/44
6,769,009	B1	7/2004	Reisman	709/201
6,771,317	B2	8/2004	Ellis et al.	348/569
6,772,162	B2	8/2004	Waldo et al.	707/10
6,782,087	B1	8/2004	Atkinson et al.	
6,785,659	B1	8/2004	Landsman et al.	705/14
6,785,661	B1	8/2004	Dixon et al.	705/39
6,788,997	B1	9/2004	Frederick	700/236
6,791,588	B1	9/2004	Philyaw	345/862
6,792,452	B1	9/2004	Philyaw	709/217
6,796,492	B1	9/2004	Gatto	235/379
6,799,174	B2	9/2004	Chipman et al.	707/3
6,799,725	B1	10/2004	Hess et al.	
6,801,820	B1	10/2004	Lilly et al.	700/100
6,804,783	B1	10/2004	Wesinger, Jr. et al.	713/200
6,807,532	B1	10/2004	Kolls	705/10
6,816,875	B2	11/2004	Wollrath et al.	707/206
6,816,894	B1	11/2004	Philyaw et al.	709/219
6,823,388	B1	11/2004	Philyaw et al.	709/227
6,824,057	B2	11/2004	Rathus et al.	
6,826,592	B1	11/2004	Philyaw et al.	709/202
6,827,267	B2	12/2004	Rathus et al.	
6,829,595	B2	12/2004	Justice	705/64
6,829,650	B1	12/2004	Philyaw et al.	709/238
6,830,187	B2	12/2004	Rathus et al.	
6,830,188	B2	12/2004	Rathus et al.	
6,832,223	B1	12/2004	Scheifler et al.	707/10
6,834,268	B2	12/2004	Junger	705/28
6,834,804	B2	12/2004	Rathus et al.	
6,836,799	B1	12/2004	Philyaw et al.	709/224
6,839,687	B1	1/2005	Dent et al.	705/40
6,843,411	B2	1/2005	Rathus et al.	235/375
6,843,417	B1	1/2005	Philyaw et al.	
6,843,419	B2	1/2005	Rathus et al.	
6,845,364	B1	1/2005	Pool et al.	705/26
6,845,388	B1	1/2005	Philyaw	709/204
6,845,505	B1	1/2005	Adunuthula et al.	718/105
6,847,854	B2	1/2005	Discenzo	700/99
6,847,965	B2	1/2005	Walker et al.	707/5
6,849,045	B2	2/2005	Iliff	600/300
6,850,907	B2	2/2005	Lutnick et al.	705/37
6,850,918	B1	2/2005	Burchetta et al.	705/80
6,850,996	B2	2/2005	Wagner	710/33
6,859,787	B2	2/2005	Fisher et al.	705/26
6,859,791	B1	2/2005	Spagna et al.	705/51
6,860,424	B1	3/2005	Philyaw et al.	
6,862,732	B1	3/2005	Schultz et al.	718/102
6,868,403	B1	3/2005	Wiser et al.	705/51
6,868,408	B1	3/2005	Rosen	705/64
6,868,433	B1	3/2005	Philyaw	709/203
6,871,220	B1	3/2005	Rajan et al.	709/218
6,873,978	B1	3/2005	Boucher et al.	705/401
6,876,978	B1	4/2005	Walker et al.	705/26
6,876,991	B1	4/2005	Owen et al.	706/46
6,877,032	B1	4/2005	Philyaw	709/217
6,879,962	B1	4/2005	Smith et al.	705/22
6,879,966	B1	4/2005	Lapsley et al.	705/78
6,880,123	B1	4/2005	Landsman et al.	
6,882,981	B2	4/2005	Philippe et al.	705/26
6,885,981	B2	4/2005	Bomar, Jr. et al.	703/8
6,885,994	B1	4/2005	Scroggie et al.	705/14
6,886,750	B2	5/2005	Rathus et al.	
6,889,074	B2	5/2005	Uber, III et al.	600/431
6,889,194	B1	5/2005	Kadaba	705/1
6,889,198	B2	5/2005	Kawan	705/14
6,889,214	B1	5/2005	Pagel et al.	705/410
6,898,299	B1	5/2005	Brooks	382/115
6,898,469	B2	5/2005	Bickford	700/30
6,898,581	B1	5/2005	Cordery et al.	705/400
6,898,591	B1	5/2005	Moon et al.	707/3
6,901,240	B2	5/2005	Tokoro	455/303
6,901,283	B2	5/2005	Evans, III et al.	600/431
6,901,301	B2	5/2005	Bradshaw	700/48
6,901,393	B1	5/2005	Owen et al.	706/46
6,901,433	B2	5/2005	San Andres et al.	709/216
6,907,315	B1	6/2005	Hartman et al.	700/216
6,907,399	B1	6/2005	Cordery et al.	705/1
6,907,405	B2	6/2005	Brett	705/37
6,910,047	B1	6/2005	Boucher et al.	707/103
6,910,628	B1	6/2005	Sehr	235/384
6,912,510	B1	6/2005	Shepherd	705/37
6,915,169	B2	7/2005	Flynn et al.	607/122
6,915,271	B1	7/2005	Meyer et al.	705/14
6,920,433	B1	7/2005	Seretti et al.	705/37
6,925,444	B1	8/2005	McCollom et al.	705/14
6,925,644	B2	8/2005	Waldo et al.	718/104
6,926,203	B1	8/2005	Sehr	235/492
6,929,182	B2	8/2005	Rathus et al.	
6,938,007	B1	8/2005	Iulianello et al.	705/34
6,938,021	B2	8/2005	Shear et al.	705/67
6,938,263	B2	8/2005	Wollrath et al.	719/330
6,941,273	B1	9/2005	Loghmani et al.	705/26
6,941,454	B1	9/2005	Spraggs	713/150
6,945,457	B1	9/2005	Barcelou	235/380
6,951,008	B2	9/2005	Quaile	706/54
6,954,741	B1	10/2005	Burchetta et al.	705/80
6,954,782	B2	10/2005	Thurlow et al.	709/206
6,954,802	B2	10/2005	Sutherland et al.	710/5
6,957,202	B2	10/2005	Skaanning et al.	706/20
6,957,427	B1	10/2005	Wollrath et al.	718/1
6,959,288	B1	10/2005	Medina et al.	705/51
6,963,847	B1	11/2005	Kennedy et al.	705/8
6,963,856	B2	11/2005	Lutnick et al.	705/37
6,965,272	B2	11/2005	Trefethen et al.	331/44
6,968,319	B1	11/2005	Remington et al.	705/40
6,968,375	B1	11/2005	Brown	709/224
6,970,914	B1	11/2005	Philyaw et al.	709/217
6,973,477	B1	12/2005	Martino	709/203
6,980,968	B1	12/2005	Walker et al.	705/38
6,981,059	B1	12/2005	Philyaw et al.	709/245
6,983,227	B1	1/2006	Thalhammer-Reyero	703/2
6,983,253	B1	1/2006	Maul et al.	705/4
6,983,257	B2	1/2006	Gatto	705/36
6,983,371	B1	1/2006	Hurtado et al.	713/189
6,985,888	B1	1/2006	Cordery et al.	705/60
6,985,954	B1	1/2006	Philyaw et al.	709/229
6,990,630	B2	1/2006	Landsman et al.	715/500
6,993,572	B2	1/2006	Ross, Jr. et al.	709/218

6,996,535	B1	2/2006	Ono et al.	705/26
6,996,539	B1	2/2006	Wallman	705/36
6,996,542	B1	2/2006	Landry	705/40
6,999,938	B1	2/2006	Libman	705/10
7,006,989	B2	2/2006	Bezos et al.	705/26
7,007,166	B1	2/2006	Moskowitz et al.	713/176
7,010,577	B1	3/2006	Philyaw et al.	709/217
7,016,863	B1	3/2006	Kamakura et al.	705/26
7,016,870	B1	3/2006	Jones et al.	705/35
7,016,878	B2	3/2006	Yoshioka et al.	705/51
7,020,622	B1	3/2006	Messer	705/26
7,020,631	B2	3/2006	Freeman et al.	705/36 R
7,024,377	B1	4/2006	Goldschmidt et al.	705/26
7,028,034	B2	4/2006	Wesinger, Jr. et al.	707/10
7,028,187	B1	4/2006	Rosen	713/175
7,031,901	B2	4/2006	Abu El Ata	703/21
7,035,786	B1	4/2006	Abu El Ata et al.	703/21
7,035,832	B1	4/2006	Kara	705/408
7,039,595	B1	5/2006	Lilly et al.	705/8
7,039,597	B1	5/2006	Notani et al.	705/9
7,039,599	B2	5/2006	Merriman et al.	705/14
7,039,603	B2	5/2006	Walker et al.	705/26
7,040,504	B2	5/2006	Broadfield et al.	221/98
7,043,441	B1	5/2006	Maher	705/1
7,043,536	B1	5/2006	Philyaw et al.	709/219
7,044,993	B1	5/2006	Bolduc	55/524
7,047,218	B1	5/2006	Wallman	705/36 R
7,050,873	B1	5/2006	Discenzo	700/99
7,050,995	B2	5/2006	Wojcik et al.	705/28
7,051,212	B2	5/2006	Ginter et al.	713/193
7,054,830	B1	5/2006	Eggleston et al.	705/14
7,058,596	B1	6/2006	Wojcik et al.	705/26
7,058,954	B1	6/2006	Wollrath et al.	719/310
7,062,274	B2	6/2006	Shell et al.	455/445
7,062,458	B2	6/2006	Maggioncalda et al.	705/36
7,062,500	B1	6/2006	Hall et al.	707/102
7,062,757	B2	6/2006	Honarvar et al.	717/127
7,069,451	B1	6/2006	Ginter et al.	713/200
7,069,576	B1	6/2006	Knudson et al.	725/105
7,069,582	B2	6/2006	Philyaw et al.	726/3
7,072,850	B1	7/2006	Van Luchene	705/14
7,076,453	B2	7/2006	Jammes et al.	705/26
7,076,456	B1	7/2006	Rofrano	705/27
7,076,458	B2	7/2006	Lawlor et al.	705/35
7,076,475	B2	7/2006	Honarvar	706/47
7,076,652	B2	7/2006	Ginter et al.	713/153
7,080,544	B2	7/2006	Stepanik et al.	73/31.02
7,082,426	B2	7/2006	Musgrove et al.	707/3
7,085,366	B2	8/2006	O'Neil	
7,085,729	B1	8/2006	Kennedy et al.	705/10
7,089,209	B1	8/2006	Kolls	705/39
7,089,291	B1	8/2006	Philyaw	709/217
7,092,897	B2	8/2006	Wallace	705/22
7,092,914	B1	8/2006	Shear et al.	705/67
7,095,840	B2	8/2006	Dezonno et al.	
7,095,854	B1	8/2006	Ginter et al.	380/233
7,099,832	B2	8/2006	Walker et al.	705/14
7,100,199	B2	8/2006	Ginter et al.	726/4
7,103,568	B1	9/2006	Fusz et al.	705/26
7,103,594	B1	9/2006	Wolfe	707/5
7,107,224	B1	9/2006	Weller et al.	705/10
7,107,228	B1	9/2006	Walker et al.	705/26
7,107,244	B2	9/2006	Kight et al.	705/40
7,110,959	B2	9/2006	Hahn-Carlson	705/8
7,110,971	B2	9/2006	Wallman	705/36
7,110,983	B2	9/2006	Shear et al.	705/55
7,110,984	B1	9/2006	Spagna et al.	705/57
7,117,162	B1	10/2006	Seal et al.	705/9
7,117,165	B1	10/2006	Adams et al.	705/26
7,117,176	B2	10/2006	Wallman	705/36
7,117,240	B1	10/2006	Philyaw et al.	709/201
7,120,800	B2	10/2006	Ginter et al.	713/193
7,120,802	B2	10/2006	Shear et al.	713/194
7,124,092	B2	10/2006	O'Toole, Jr. et al.	705/14
7,124,302	B2	10/2006	Ginter et al.	713/189
7,127,464	B2	10/2006	Wesinger, Jr. et al.	707/10
7,127,478	B1	10/2006	Schoenwolf et al.	707/204
7,127,495	B2	10/2006	Brown et al.	709/217
7,130,807	B1	10/2006	Mikurak	705/7
7,130,818	B2	10/2006	Fisher et al.	705/26
7,130,823	B1	10/2006	Rayner et al.	705/37
7,130,828	B2	10/2006	Phillips et al.	705/41
7,130,888	B1	10/2006	Hickman et al.	709/208
7,131,890	B1	11/2006	Molnar	451/8
7,133,835	B1	11/2006	Fusz et al.	705/26
7,133,845	B1	11/2006	Ginter et al.	705/51
7,133,846	B1	11/2006	Ginter et al.	705/54
7,136,835	B1	11/2006	Flitcroft et al.	705/39
7,139,726	B2	11/2006	Fisher et al.	705/26
7,139,743	B2	11/2006	Indeck et al.	707/1
7,143,062	B2	11/2006	Turk et al.	705/38
7,143,063	B2	11/2006	Lent et al.	705/38
7,143,066	B2	11/2006	Shear et al.	705/54
7,143,290	B1	11/2006	Ginter et al.	713/176
7,143,337	B2	11/2006	Landsman et al.	715/500
7,146,341	B1	12/2006	Light et al.	705/64
7,149,303	B1	12/2006	Laurinavichus	379/265.01
7,149,716	B2	12/2006	Gatto	705/36 R
7,149,720	B2	12/2006	Shepherd	705/37
7,149,958	B2	12/2006	Landsman et al.	715/500
7,152,045	B2	12/2006	Hoffman	705/43
7,152,200	B2	12/2006	Albert et al.	715/500
7,152,208	B2	12/2006	Ohashi	715/530
7,155,663	B2	12/2006	Landsman et al.	715/500
7,158,947	B1	1/2007	Findley	705/26
7,159,037	B1	1/2007	Philyaw et al.	709/245
7,159,043	B2	1/2007	Bateman et al.	710/6
7,162,434	B1	1/2007	Walker et al.	705/14
7,165,174	B1	1/2007	Ginter et al.	713/153
7,167,818	B2	1/2007	Brown	703/11
7,167,838	B1	1/2007	Gatto	705/36 R
7,171,388	B2	1/2007	Phillips et al.	705/41
7,171,446	B2	1/2007	Gosling et al.	709/203
7,174,314	B2	2/2007	Phillips et al.	705/41
7,174,315	B2	2/2007	Phillips et al.	705/41
7,174,316	B2	2/2007	Phillips et al.	705/41
7,174,317	B2	2/2007	Phillips et al.	705/41
7,178,020	B2	2/2007	DiRienzo	713/153
7,181,410	B1	2/2007	Jones et al.	705/6
7,184,977	B1	2/2007	Crim et al.	705/34
7,184,990	B2	2/2007	Walker et al.	705/400
7,194,423	B2	3/2007	Walker et al.	705/14
7,194,436	B2	3/2007	Tammaro	705/38
7,197,444	B2	3/2007	Bomar, Jr. et al.	703/8
7,197,481	B1	3/2007	Yamamoto et al.	705/28
7,197,543	B2	3/2007	Philyaw et al.	709/217
7,201,580	B2	4/2007	Ho et al.	434/219
7,203,656	B2	4/2007	Lotvin et al.	705/13
7,203,661	B1	4/2007	Graff	705/36 R
7,203,725	B1	4/2007	Gilmour et al.	709/206
7,206,748	B1	4/2007	Gruse et al.	705/1
7,206,763	B2	4/2007	Turk	705/39
7,210,148	B2	4/2007	Arnold et al.	719/330
7,213,003	B1	5/2007	Kight et al.	705/40
7,216,084	B2	5/2007	Brinkman et al.	705/2
7,222,079	B1	5/2007	Seare et al.	705/3
7,222,085	B2	5/2007	Stack	705/10
7,222,087	B1	5/2007	Bezos et al.	705/26
7,222,111	B1	5/2007	Budike, Jr.	705/412
7,222,156	B2	5/2007	Gupta et al.	709/206
7,223,235	B2	5/2007	Brown	600/300
7,223,236	B2	5/2007	Brown	600/300
7,225,142	B1	5/2007	Apte et al.	705/14
7,228,199	B2	6/2007	Wallace	700/236
7,228,282	B1	6/2007	Philyaw et al.	705/1
7,233,912	B2	6/2007	Walker et al.	705/14
7,233,913	B2	6/2007	Scroggie et al.	705/14
7,233,948	B1	6/2007	Shamoon et al.	707/9
7,236,942	B1	6/2007	Walker et al.	705/14
7,240,022	B1	7/2007	Bistriceanu et al.	705/14
7,240,023	B1	7/2007	Powell	705/14
7,240,031	B1	7/2007	Kight et al.	705/40
7,241,219	B2	7/2007	Walker et al.	463/20
7,243,081	B2	7/2007	Friend et al.	705/36
7,246,093	B1	7/2007	Katz	705/37
7,248,719	B2	7/2007	Hoffman et al.	382/115
7,249,027	B1	7/2007	Ausubel	705/1
7,249,114	B2	7/2007	Burchetta et al.	705/80

7,252,636	B2	8/2007	Brown	600/300
7,257,566	B2	8/2007	Danielson et al.	706/52
7,257,604	B1	8/2007	Wolfe	
7,257,614	B2	8/2007	Philyaw et al.	709/202
7,258,666	B2	8/2007	Brown	600/300
7,263,497	B1	8/2007	Wiser et al.	705/26
7,264,591	B2	9/2007	Brown	600/300
7,265,853	B1	9/2007	Kara et al.	358/115
7,269,564	B1	9/2007	Milsted et al.	705/1
7,269,591	B2	9/2007	Wesinger, Jr. et al.	707/10
7,272,569	B1	9/2007	Walker et al.	705/16
7,272,639	B1	9/2007	Levergood et al.	709/218
7,277,867	B1	10/2007	Brown et al.	705/37
7,280,979	B1	10/2007	Katz et al.	705/26
7,281,133	B2	10/2007	Ginter et al.	713/176
7,283,973	B1	10/2007	Loghmani et al.	705/26
7,283,974	B2	10/2007	Katz et al.	705/26
7,284,066	B1	10/2007	Philyaw et al.	709/238
7,287,091	B2	10/2007	Philyaw et al.	709/238
7,289,971	B1	10/2007	O'Neil et al.	705/44
7,297,109	B2	11/2007	Brown	600/300
7,297,111	B2	11/2007	Iliff	600/300
7,298,851	B1	11/2007	Hendricks et al.	380/282
7,299,201	B2	11/2007	Jammes et al.	705/26
7,299,501	B2	11/2007	Hendricks	726/27
7,300,402	B2	11/2007	Iliff	600/300
7,302,415	B1	11/2007	Saito	705/557
7,303,081	B2	12/2007	Mallett et al.	209/702
7,305,278	B2	12/2007	Enright et al.	700/115
7,305,348	B1	12/2007	Brown	705/1
7,305,371	B2	12/2007	Brueckner et al.	706/45
7,305,451	B2	12/2007	San Andres et al.	709/216
7,306,560	B2	12/2007	Iliff	600/300
7,308,483	B2	12/2007	Philyaw	709/217
7,310,051	B2	12/2007	Lawrence	
7,310,668	B2	12/2007	Brown	709/224
7,311,207	B2	12/2007	Mallett et al.	209/702
7,313,431	B2	12/2007	Uber, III et al.	600/431
7,314,173	B2	1/2008	Philyaw et al.	235/454
7,318,106	B2	1/2008	Philyaw	709/238
7,318,224	B2	1/2008	Honarvar et al.	717/170
7,318,529	B2	1/2008	Mallett et al.	209/702
7,319,477	B2	1/2008	Katz	
7,319,886	B2	1/2008	Tokoro	
7,319,976	B1	1/2008	Peckover	705/14
7,320,030	B2	1/2008	Brown	709/224
7,321,748	B2	1/2008	Tokoro	455/303
7,321,871	B2	1/2008	Scott et al.	705/36 R
7,321,876	B1	1/2008	Wolfston	705/39
7,321,883	B1	1/2008	Freedy et al.	706/45
7,321,941	B1	1/2008	Philyaw et al.	709/245
7,324,972	B1	1/2008	Oliver et al.	705/40
7,333,851	B2	2/2008	Echauz et al.	600/544
7,333,953	B1	2/2008	Banaugh et al.	705/40
7,334,024	B2	2/2008	Martino	709/217
7,336,788	B1	2/2008	Hendricks	380/239
7,337,133	B1	2/2008	Bezos et al.	705/27
RE40,186	E	3/2008	Walker et al.	705/14
7,340,045	B2	3/2008	Felger	
7,343,222	B2	3/2008	Solomon	700/245
7,343,492	B2	3/2008	Moskowitz et al.	713/176
7,344,496	B2	3/2008	Iliff	600/300
7,346,564	B1	3/2008	Kirklin et al.	705/28
7,346,768	B2	3/2008	DiRienzo	713/150
7,351,142	B2	4/2008	Walker et al.	463/17
7,356,502	B1	4/2008	LaBadie et al.	705/38
7,360,244	B2	4/2008	Coley et al.	726/11
7,362,775	B1	4/2008	Moskowitz	370/468
7,363,273	B2	4/2008	Phillips et al.	705/41
7,364,068	B1	4/2008	Strubbe et al.	235/376
7,370,008	B1	5/2008	Hill	705/27
7,370,114	B1	5/2008	Philyaw et al.	709/231
7,376,891	B2	5/2008	Hitchock et al.	715/221
7,379,900	B1	5/2008	Wren	705/26
7,379,901	B1	5/2008	Philyaw	705/26
7,380,273	B2	5/2008	Coley et al.	726/12
7,383,200	B1	6/2008	Walker et al.	705/10
7,383,220	B1	6/2008	Keith	705/37
7,383,222	B2	6/2008	Keith	705/37
7,383,226	B2	6/2008	Kight et al.	705/40
7,383,333	B2	6/2008	Philyaw et al.	709/224
7,383,447	B2	6/2008	Saito	713/193
7,383,573	B2	6/2008	Coley et al.	726/12
7,386,508	B1	6/2008	Walker et al.	705/39
7,386,600	B1	6/2008	Philyaw	709/217
7,389,211	B2	6/2008	Abu El Ata et al.	703/2
7,389,331	B2	6/2008	Van Wyngarden	709/219
7,392,095	B2	6/2008	Flynn et al.	607/127
7,392,167	B2	6/2008	Brown	703/11
7,392,285	B2	6/2008	Philyaw	709/204
7,392,312	B1	6/2008	Philyaw	709/225
7,392,395	B2	6/2008	Ginter et al.	713/176
7,392,945	B1	7/2008	Philyaw	235/383
7,395,226	B2	7/2008	Messer	705/26
7,398,244	B1	7/2008	Keith	705/37
7,398,541	B2	7/2008	Bennington et al.	725/40
7,401,059	B1	7/2008	Owen et al.	706/46
7,401,286	B1	7/2008	Hendricks et al.	715/203
7,403,922	B1	7/2008	Lewis et al.	705/38
7,404,207	B2	7/2008	Perry	726/15
7,409,073	B2	8/2008	Moskowitz et al.	382/100
7,409,632	B1	8/2008	DiRienzo	715/226
7,412,434	B1	8/2008	Klug et al.	707/1
7,412,666	B2	8/2008	Philyaw	715/852
7,415,511	B2	8/2008	Philyaw et al.	709/219
7,415,617	B2	8/2008	Ginter et al.	713/189
7,418,397	B2	8/2008	Kojima et al.	705/1
7,418,483	B2	8/2008	Hess et al.	709/219
7,421,724	B2	9/2008	Klosterman et al.	725/42
7,424,521	B1	9/2008	Philyaw et al.	709/219
7,424,737	B2	9/2008	Wesinger, Jr. et al.	726/11
7,425,978	B2	9/2008	Katz	
7,427,281	B2	9/2008	Uber, III	604/508
7,428,511	B2	9/2008	Takahashi et al.	705/44
7,433,828	B2	10/2008	Brinkman et al.	705/3
7,437,313	B1	10/2008	Mussman	705/26
7,437,431	B2	10/2008	San Andres et al.	709/219
7,437,475	B2	10/2008	Philyaw	709/238
7,440,907	B2	10/2008	Lilly et al.	705/8
7,440,993	B1	10/2008	Philyaw et al.	709/203
RE40,576	E	11/2008	Goodwin, III	709/232
7,447,914	B1	11/2008	Saito	713/191
7,448,040	B2	11/2008	Ellis et al.	719/310
7,451,892	B2	11/2008	Walker et al.	221/237
7,454,358	B2	11/2008	Mallett et al.	705/1
7,454,381	B2	11/2008	Walker et al.	705/37
7,457,962	B2	11/2008	Moskowitz	713/176
7,463,925	B2	12/2008	Kramer	607/15
7,469,339	B2	12/2008	Everett et al.	713/172
7,471,981	B2	12/2008	Kramer	607/9
7,472,074	B1	12/2008	Walker et al.	705/26
7,475,028	B2	1/2009	Loeb et al.	705/26
7,475,039	B2	1/2009	Remington et al.	705/40
7,475,043	B2	1/2009	Light et al.	705/64
7,478,066	B2	1/2009	Remington et al.	705/40
7,478,076	B1	1/2009	Owen et al.	706/46
7,478,239	B1	1/2009	Rosen	713/172
7,479,060	B2	1/2009	Walker et al.	463/17
7,480,929	B2	1/2009	Klosterman et al.	725/44
7,483,739	B2	1/2009	Kramer	607/9
7,483,871	B2	1/2009	Herz	707/2
7,487,117	B1	2/2009	Tamura et al.	705/27
7,487,128	B2	2/2009	Spagna et al.	705/51
7,487,155	B2	2/2009	Jebens et al.	707/10
7,490,135	B2	2/2009	Klug et al.	709/217
7,493,283	B1	2/2009	Philyaw	705/39
7,493,384	B1	2/2009	Philyaw	709/224
7,493,641	B2	2/2009	Klosterman et al.	725/44
7,494,417	B2	2/2009	Walker et al.	463/25
7,496,523	B2	2/2009	Walker et al.	705/14
7,496,638	B2	2/2009	Philyaw	709/217
7,499,898	B1	3/2009	Owen et al.	706/46
7,499,979	B2	3/2009	Hess et al.	709/213
7,502,832	B2	3/2009	San Andres et al.	709/216
7,505,913	B2	3/2009	Tobin	705/1
7,505,915	B2	3/2009	Silverman et al.	705/1
7,505,922	B1	3/2009	Philyaw	705/26
7,505,939	B2	3/2009	Lent et al.	705/38

7,506,020	B2	3/2009	Ellis	709/201
7,509,268	B2	3/2009	Walker et al.	705/14
7,509,270	B1	3/2009	Hendricks et al.	705/26
7,509,277	B1	3/2009	Gatto	705/36 R
7,509,360	B2	3/2009	Wollrath et al.	707/206
7,512,548	B1	3/2009	Bezos et al.	705/26
7,516,088	B2	4/2009	Johnson et al.	705/16
7,516,089	B1	4/2009	Walker et al.	705/26
7,516,101	B2	4/2009	Remington et al.	705/40
7,516,192	B2	4/2009	Brown	709/217
7,519,444	B2	4/2009	Lilly et al.	700/100
7,519,549	B1	4/2009	Johnson et al.	705/28
7,523,063	B2	4/2009	Harrington et al.	705/37
7,523,161	B2	4/2009	Philyaw	709/204
7,533,064	B1	5/2009	Boesch	705/67
7,533,171	B2	5/2009	Brown	709/224
7,533,177	B2	5/2009	Philyaw et al.	709/227
7,536,352	B2	5/2009	Lapsley et al.	705/44
7,536,478	B2	5/2009	Philyaw et al.	709/238
7,539,637	B2	5/2009	Gatto	705/36 R
7,539,648	B1	5/2009	Cordery et al.	705/60
7,542,919	B1	6/2009	Mueller et al.	705/16
7,545,816	B1	6/2009	Coutts et al.	370/400
7,546,267	B2	6/2009	Wallman	705/37
7,546,277	B1	6/2009	Tedesco et al.	705/400
7,546,346	B2	6/2009	Ouchi	709/206
7,547,251	B2	6/2009	Walker et al.	463/17
7,548,988	B2	6/2009	Philyaw et al.	709/231
7,552,082	B2	6/2009	Wallman	705/37
7,552,090	B1	6/2009	Barber	705/40
7,552,190	B1	6/2009	Freishtat et al.	709/217
7,555,458	B1	6/2009	Felger	705/38
7,558,407	B2	7/2009	Hoffman et al.	382/115
7,558,752	B1	7/2009	Ephrati et al.	705/37
7,558,838	B2	7/2009	Philyaw	709/217
7,562,040	B2	7/2009	Loeper	705/36 R
7,567,934	B2	7/2009	Flitcroft et al.	705/37
7,568,100	B1	7/2009	Moskowitz et al.	713/176
7,571,136	B2	8/2009	May	705/37
7,571,850	B2	8/2009	Barcelou	235/379
7,572,169	B1	8/2009	Molnar	451/8
7,575,158	B2	8/2009	Barcelou	235/379
7,577,092	B2	8/2009	San Andres et al.	370/230
7,577,609	B1	8/2009	Maher	705/39
7,580,860	B2	8/2009	Junger	705/22
7,581,092	B2	8/2009	Shear et al.	713/2
RE40,924	E	9/2009	Nicholls et al.	705/28
7,584,108	B2	9/2009	Brown	705/2
7,584,358	B2	9/2009	Everett et al.	713/172
7,587,333	B1	9/2009	Walker et al.	705/15
7,587,334	B2	9/2009	Walker et al.	705/16
7,587,469	B2	9/2009	Brown	709/217
7,590,549	B2	9/2009	Brown	705/2
7,590,853	B1	9/2009	Shear et al.	713/176
7,590,866	B2	9/2009	Hurtado et al.	713/189
7,591,420	B2	9/2009	Barcelou	235/380
7,593,869	B2	9/2009	Nahan et al.	705/26
7,593,870	B2	9/2009	Jalili	705/26
7,593,896	B1	9/2009	Flitcroft et al.	705/39
7,596,510	B2	9/2009	Fisher et al.	705/26
7,596,786	B2	9/2009	Philyaw et al.	717/174
7,597,248	B2	10/2009	Barcelou	235/379
7,597,251	B2	10/2009	Barcelou	235/380
7,600,677	B2	10/2009	Barcelou	235/380
7,603,308	B2	10/2009	Gatto	705/36 R
7,603,690	B2	10/2009	Knudson et al.	725/105
7,606,355	B2	10/2009	Hutchison et al.	
7,606,401	B2	10/2009	Hoffman et al.	382/124
7,606,729	B1	10/2009	Walker et al.	705/14
7,606,737	B2	10/2009	Hutchison et al.	705/26
7,606,854	B2	10/2009	Ellis, III	709/201
7,610,217	B1	10/2009	Mori et al.	705/26
7,610,245	B2	10/2009	Dent et al.	705/40
7,613,590	B2	11/2009	Brown	702/188
7,613,621	B2	11/2009	Brown	705/2
7,613,633	B1	11/2009	Woolston	705/26
7,613,652	B2	11/2009	Young et al.	705/37
7,613,659	B1	11/2009	Hoffman et al.	705/44
7,617,125	B1	11/2009	Light et al.	705/26
7,617,973	B2	11/2009	Barcelou	235/380
7,620,605	B2	11/2009	Hoffman et al.	705/52
7,620,619	B1	11/2009	Walker et al.	707/3
7,621,444	B2	11/2009	Barcelou	235/379
7,624,028	B1	11/2009	Brown	705/3
7,624,044	B2	11/2009	Wren	705/26
7,627,499	B2	12/2009	Hahn-Carlson	705/26
7,630,919	B1	12/2009	Obrecht	705/26
7,631,193	B1	12/2009	Hoffman	713/186
7,634,529	B2	12/2009	Ellis, III	709/201
7,636,667	B2	12/2009	Brown	705/2
7,636,688	B2	12/2009	Kitchen et al.	705/39
7,636,689	B2	12/2009	Dent et al.	705/40
7,636,788	B2	12/2009	Philyaw et al.	709/238
7,643,971	B2	1/2010	Brown	703/2
7,647,241	B1	1/2010	Lilly et al.	705/10
7,647,243	B2	1/2010	Woolston	705/26
7,647,269	B2	1/2010	Brett	705/37
7,647,502	B2	1/2010	Moskowitz	713/176
7,647,503	B2	1/2010	Moskowitz	713/176
7,653,687	B2	1/2010	Reisman	709/203
7,657,484	B2	2/2010	Ganesan et al.	705/40
7,657,560	B1	2/2010	DiRienzo	
7,657,561	B2	2/2010	Gibbon et al.	
7,660,744	B2	2/2010	Philippe et al.	705/26
7,660,874	B1	2/2010	Meltzer et al.	709/218
7,661,590	B1	2/2010	Gatto	235/384
7,664,263	B2	2/2010	Moskowitz	380/205
7,664,672	B1	2/2010	Walker et al.	705/26
7,664,958	B2	2/2010	Moskowitz	713/176
7,665,109	B2	2/2010	Matthews, III et al.	725/51
7,665,656	B2	2/2010	Gatto	235/379
7,668,782	B1	2/2010	Reistad et al.	705/50
7,668,886	B2	2/2010	Hartman et al.	707/705
7,669,055	B2	2/2010	Everett et al.	713/173
7,669,762	B2	3/2010	Hutchison et al.	235/383
7,672,892	B2	3/2010	Odom et al.	705/37
7,684,999	B2	3/2010	Brown	705/2
7,685,046	B2	3/2010	Wallman	705/36 R
7,685,053	B2	3/2010	Graff	705/37
7,689,440	B2	3/2010	Brown	705/2
7,689,468	B2	3/2010	Walker et al.	705/26
7,689,497	B2	3/2010	May	705/37
7,689,684	B2	3/2010	Donoho et al.	709/224
7,689,826	B2	3/2010	Everett et al.	713/173
7,693,748	B1	4/2010	Mesaros	705/26
7,693,790	B2	4/2010	Lawlor et al.	705/40
7,693,796	B2	4/2010	Light et al.	705/64
7,694,129	B2	4/2010	DiRienzo	713/153
7,698,173	B1	4/2010	Burge et al.	705/26
7,698,210	B2	4/2010	Brett	705/37
7,698,567	B2	4/2010	Hoffman	713/186
7,699,220	B2	4/2010	Barcelou	235/380
7,702,540	B1	4/2010	Woolston	705/26
7,702,736	B2	4/2010	Ouchi	709/206
7,702,737	B2	4/2010	Ouchi	709/206
7,702,752	B2	4/2010	Kirsch et al.	709/219
7,702,908	B2	4/2010	Everett et al.	713/172
7,703,683	B2	4/2010	Rathus et al.	
7,707,259	B2	4/2010	Ouchi	709/206
7,707,270	B2	4/2010	Brown	709/217
7,707,408	B2	4/2010	Everett et al.	713/160
7,708,199	B2	5/2010	Gatto	235/381
7,711,599	B1	5/2010	Libman	
7,711,604	B1	5/2010	Walker et al.	705/26
7,711,650	B1	5/2010	Kara	705/60
7,711,658	B2	5/2010	Tedesco et al.	705/400
7,712,668	B2	5/2010	Rathus et al.	
7,716,088	B2	5/2010	Spiegel et al.	705/27
7,716,349	B1	5/2010	Hendricks	709/229
7,717,344	B2	5/2010	Rathus et al.	
7,717,784	B2	5/2010	Walker et al.	463/17
7,720,746	B2	5/2010	Brett	705/37
7,725,375	B2	5/2010	Shepherd	705/35
7,730,177	B2	6/2010	Brown	709/224
7,730,310	B2	6/2010	Everett et al.	713/172
7,730,311	B2	6/2010	Everett et al.	713/172
7,730,312	B2	6/2010	Everett et al.	713/172
7,730,317	B2	6/2010	Moskowitz et al.	713/176

7,730,323	B2	6/2010	Saito	713/189
7,730,324	B2	6/2010	Saito	713/191
7,734,553	B2	6/2010	Shear et al.	705/64
7,734,718	B2	6/2010	Brown	709/217
7,734,747	B2	6/2010	Murphy et al.	709/223
7,734,923	B2	6/2010	Everett et al.	713/172
7,738,659	B2	6/2010	Moskowitz	380/252
7,739,353	B2	6/2010	Philyaw	709/217
7,747,463	B1	6/2010	Phillips et al.	
7,747,476	B2	6/2010	Messer	705/27
7,747,507	B2	6/2010	Brett	705/37
7,747,527	B1	6/2010	Korala	705/43
7,752,466	B2	7/2010	Ginter et al.	713/194
7,756,746	B2	7/2010	Walker et al.	705/15
7,756,781	B2	7/2010	Lent et al.	705/38
7,757,254	B2	7/2010	Shoff et al.	725/44
7,761,308	B2	7/2010	Falchuk et al.	705/2
7,761,312	B2	7/2010	Brown	705/3
7,761,712	B2	7/2010	Moskowitz et al.	713/176
7,761,916	B2	7/2010	Shear et al.	726/22
7,765,112	B2	7/2010	Brown	705/2
7,765,138	B2	7/2010	Loeper	705/36 R
7,765,279	B1	7/2010	Kaib et al.	709/218
7,769,001	B2	8/2010	Narasimhan et al.	370/356
7,769,600	B2	8/2010	Iliff	705/2
7,769,605	B2	8/2010	Brown	705/3
7,769,644	B2	8/2010	Naghshiineh et al.	705/28
7,769,673	B2	8/2010	Brett	705/37
7,770,017	B2	8/2010	Moskowitz et al.	713/176
7,774,230	B2	8/2010	Libman	
7,774,257	B2	8/2010	Maggioncalda et al.	705/36 R
7,774,264	B1	8/2010	Ausubel	705/37
7,774,812	B2	8/2010	Knudson et al.	725/45
7,774,934	B2	8/2010	Sundberg et al.	29/876
7,778,395	B2	8/2010	Martino	379/671
7,778,845	B2	8/2010	Brown	705/2
7,778,867	B2	8/2010	Libman	705/141
7,778,901	B2	8/2010	Ganesan et al.	705/35
7,779,125	B2	8/2010	Wyngarden	709/225
7,779,261	B2	8/2010	Moskowitz et al.	713/176
7,788,155	B2	8/2010	Jones et al.	705/36 R
7,788,189	B2	8/2010	Budike, Jr.	705/400
RE41,657	E	9/2010	Saito	705/51
7,792,696	B1	9/2010	Philyaw et al.	705/141
7,792,702	B1	9/2010	Katz et al.	705/26
7,792,705	B2	9/2010	Bezos et al.	705/26
7,792,707	B2	9/2010	Alaia et al.	705/26
7,792,986	B2	9/2010	Donoho et al.	709/236
7,793,830	B2	9/2010	Barcelou	235/379
7,797,164	B2	9/2010	Junger et al.	705/1
7,801,767	B2	9/2010	Fisher et al.	705/26
7,801,817	B2	9/2010	Saito	705/51
7,802,718	B2	9/2010	Barcelou	235/379
7,805,368	B2	9/2010	Phillips et al.	705/41
7,805,756	B2	9/2010	Ellis	726/11
RE41,903	E	10/2010	Wenig et al.	709/203
7,809,642	B1	10/2010	Phillips et al.	705/41
7,809,643	B2	10/2010	Phillips et al.	705/41
7,813,966	B2	10/2010	Alaia et al.	705/26
7,813,989	B2	10/2010	Jones et al.	705/36 R
7,814,143	B2	10/2010	Brown et al.	709/203
7,814,233	B2	10/2010	Ellis	709/250
7,818,253	B2	10/2010	Phillips et al.	705/41
7,818,284	B1	10/2010	Walker et al.	707/102
7,818,399	B1	10/2010	Ross, Jr. et al.	709/218
7,818,423	B1	10/2010	Philyaw	709/225
7,819,316	B2	10/2010	Philyaw	235/383
7,822,197	B2	10/2010	Moskowitz	380/28
7,822,625	B2	10/2010	Brown	705/2
7,822,647	B1	10/2010	Mussman et al.	705/26
7,822,657	B2	10/2010	Brown	705/35
7,822,676	B2	10/2010	Shepherd	705/37
7,822,829	B2	10/2010	Philyaw et al.	709/219
7,827,040	B2	11/2010	Brown	705/2
7,827,056	B2	11/2010	Walker et al.	
7,827,057	B1	11/2010	Walker et al.	
7,827,062	B2	11/2010	Merriman et al.	
7,827,064	B1	11/2010	Foster	705/20
7,827,075	B2	11/2010	Hess et al.	705/27
7,827,109	B2	11/2010	Saito	705/51
7,830,915	B2	11/2010	Moskowitz	370/468
7,830,962	B1	11/2010	Fernandez et al.	
7,831,470	B1	11/2010	Walker et al.	
7,831,477	B2	11/2010	Woolston	705/26
7,831,480	B2	11/2010	Burchetta et al.	705/26
7,831,523	B2	11/2010	Burchetta et al.	705/80
7,831,823	B2	11/2010	Ginter et al.	713/155
7,835,508	B1	11/2010	Katz	
7,835,509	B2	11/2010	Katz	
7,835,688	B2	11/2010	Tokoro	455/303
7,835,989	B1	11/2010	Hendricks et al.	705/50
7,837,101	B2	11/2010	Barcelou	235/380
7,839,432	B2	11/2010	Fernandez et al.	348/143
7,839,984	B2	11/2010	Katz	
7,840,440	B2	11/2010	Burchetta et al.	705/26
7,844,074	B2	11/2010	Moskowitz et al.	382/100
7,844,488	B2	11/2010	Merriman et al.	705/14
7,844,538	B2	11/2010	Wallman	705/37
7,848,496	B2	12/2010	Katz	
7,848,958	B2	12/2010	Brown et al.	705/26
7,849,393	B1	12/2010	Hendricks et al.	715/203
7,853,455	B2	12/2010	Brown	705/2
7,853,488	B1	12/2010	Mussman et al.	705/26
7,853,524	B2	12/2010	Kight et al.	705/40
7,853,600	B2	12/2010	Herz et al.	707/749
7,856,375	B2	12/2010	Libman	
7,856,376	B2	12/2010	Storey	
7,856,379	B2	12/2010	Walker et al.	705/16
7,860,744	B2	12/2010	Libman	
7,860,753	B2	12/2010	Walker et al.	705/26
7,861,166	B1	12/2010	Hendricks	715/277
7,862,506	B2	1/2011	Brown	600/300
7,864,356	B2	1/2011	Kara et al.	358/115
7,865,395	B2	1/2011	Klug et al.	705/144
7,865,404	B2	1/2011	Peckover	705/26
7,867,165	B2	1/2011	Brown	600/300
7,869,852	B2	1/2011	Brown	600/347
7,870,034	B2	1/2011	Rupp et al.	705/26
7,870,055	B2	1/2011	Fisher et al.	705/37
7,870,080	B2	1/2011	Budike, Jr.	705/412
7,870,158	B2	1/2011	DiRienzo	707/791
7,870,189	B2	1/2011	Philyaw	709/203
7,870,249	B2	1/2011	Brown	709/224
7,870,393	B2	1/2011	Moskowitz et al.	713/176
7,870,587	B2	1/2011	Ellis et al.	725/60
7,871,327	B2	1/2011	Walker et al.	463/25
7,871,376	B2	1/2011	Brown	600/300
7,877,271	B2	1/2011	Brown	705/2
7,877,274	B2	1/2011	Brown	705/3
7,877,276	B2	1/2011	Brown	705/3

FOREIGN PATENT DOCUMENTS

DE	4409458	9/1995
DE	19840383	3/2000
DE	19900500	1/2009
EP	0141858	10/1984
EP	0135485	3/1985
EP	0205873	12/1986
EP	0230349	7/1987
EP	0236587	9/1987
EP	0357719	3/1990
EP	0387389	9/1990
EP	0411748	2/1991
EP	0463616	1/1992
EP	0504616	2/1992
EP	0502161	9/1992
EP	0454122	8/1995
EP	0478634	8/1995
EP	0407026	11/1995
EP	0416482	11/1995
EP	0491455	12/1995
EP	0520620	6/1996
EP	0462815	9/1996
EP	0716386	1/1997
EP	0728339	5/1997
EP	0663654	9/1997
EP	0542298	4/1998
EP	0173249	7/1998

EP	0741348	8/1998
EP	0522231	9/1998
EP	0738446	9/1998
EP	0770967	12/1998
EP	0502164	4/1999
EP	0911738	4/1999
EP	0697271	3/2000
EP	0826184	3/2000
EP	0913057	4/2000
EP	0990962	4/2000
EP	0710125	5/2000
EP	0828223	5/2000
EP	0683466	4/2001
EP	0778535	5/2001
EP	0697669	6/2001
EP	0749606	8/2001
EP	0880088	1/2002
EP	0803105	2/2002
EP	1115095	3/2002
EP	0692766	5/2002
EP	0992952	6/2002
EP	0734556	9/2002
EP	1012773	1/2003
EP	1280091	1/2003
EP	0851358	3/2003
EP	1131754	7/2003
EP	0789884	9/2003
EP	0762306	10/2003
EP	0853287	10/2003
EP	1083939	4/2005
EP	1522947	5/2005
EP	1062582	6/2005
EP	1032920	8/2005
EP	0915422	3/2006
EP	0791202	5/2006
EP	0886954	5/2006
EP	0891590	7/2006
EP	1693795	11/2006
EP	1182597	5/2010
FR	2490371	3/1982
FR	2585153	4/1987
FR	2634570	4/1990
FR	2658635	8/1991
FR	2733846	11/1996
FR	2739951	4/1997
FR	2783619	3/2000
GB	1489572	10/1977
GB	2102606	2/1983
GB	2105075	3/1983
GB	2273593	6/1994
GB	2275550	8/1994
GB	2308210	6/1997
GB	2315579	2/1998
GB	2326001	12/1998
GB	2336211	10/1999
SG	0105592	12/1992
SG	0085593	1/2002
WO	WO9010910	9/1990
WO	WO9011571	10/1990
WO	WO9011572	10/1990
WO	WO9105572	5/1991
WO	WO9116691	10/1991
WO	WO9204920	4/1992
WO	WO9210901	6/1992
WO	WO9302422	2/1993
WO	WO9303446	2/1993
WO	WO9306931	4/1993
WO	WO9314463	7/1993
WO	WO9324892	12/1993
WO	WO9325953	12/1993
WO	WO9407207	3/1994
WO	WO9415294	7/1994
WO	WO9416508	7/1994
WO	WO9428497	12/1994
WO	WO9503595	2/1995
WO	WO9508810	3/1995
WO	WO9512176	5/1995
WO	WO9512859	5/1995
WO	WO9514496	6/1995
WO	WO9516971	6/1995
WO	WO9517733	7/1995
WO	WO9522800	8/1995
WO	WO9526535	10/1995
WO	WO9526536	10/1995
WO	WO9600949	1/1996
WO	WO9612242	4/1996
WO	WO9613013	5/1996
WO	WO9621192	7/1996
WO	WO9627155	9/1996
WO	WO9630059	10/1996
WO	WO9635184	11/1996
WO	WO9705589	2/1997
WO	WO9709666	3/1997
WO	WO9716897	5/1997
WO	WO9717663	5/1997
WO	WO9718519	5/1997
WO	WO9720592	6/1997
WO	WO9724691	7/1997
WO	WO9725684	7/1997
WO	WO9726612	7/1997
WO	WO9729445	8/1997
WO	WO9729447	8/1997
WO	WO9734246	9/1997
WO	WO9735268	9/1997
WO	WO9740463	10/1997
WO	WO9802836	1/1998
WO	WO9803925	1/1998
WO	WO9804083	1/1998
WO	WO9804086	1/1998
WO	WO9808177	2/1998
WO	WO9810361	3/1998
WO	WO9816893	4/1998
WO	WO9821679	5/1998
WO	WO9826337	6/1998
WO	WO9826364	6/1998
WO	WO9832088	7/1998
WO	WO9833134	7/1998
WO	WO9834167	8/1998
WO	WO9837675	8/1998
WO	WO9838558	9/1998
WO	WO9841942	9/1998
WO	WO9844442	10/1998
WO	WO9849639	11/1998
WO	WO9849641	11/1998
WO	WO9849642	11/1998
WO	WO9858338	12/1998
WO	WO9905501	2/1999
WO	WO9909503	2/1999
WO	WO9909506	2/1999
WO	WO9913425	3/1999
WO	WO9913427	3/1999
WO	WO9923573	5/1999
WO	WO9923592	5/1999
WO	WO9927492	6/1999
WO	WO9939290	8/1999
WO	WO9950995	10/1999
WO	WO9952025	10/1999
WO	WO9963472	12/1999
WO	WO9967712	12/1999
WO	WO0011671	3/2000
WO	WO0013123	3/2000
WO	WO 00/54178	9/2000
WO	WO 01/04822	1/2001
WO	WO 01/46884	6/2001
WO	WO 01/55939	8/2001

OTHER PUBLICATIONS

ADA Decision Systems, Decision Analysis Software for Microsoft Windows (Student ed. 1995) (ISBN 0-534-24816-0).

Robert T. Clemen, Making Hard Decisions: An Introduction to Decision Analysis (2d ed. 1996).

Understanding PMSIM (Excerpt) (CP 104-01.02 US)(1997).

Teras Production 2000 Suite, Including Drilling 2000 (Release 1998. 1.0), Halliburton.

Defendant's Invalidity Contentions, Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Jun. 6, 2009).

Sage's Answer (CPN070), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Oct. 20, 2008).
Oracle's Answer (CPN072), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Oct. 20, 2008).
SAP's Answer (CPN074), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Oct. 20, 2008).
Infor's Answer (CPN087), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Nov. 26, 2008).
Infor's Answer (CPN114), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Mar. 23, 2009).
SAP's Answer (CPN116), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Mar. 23, 2009).
Oracle's Answer (CPN117), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Mar. 23, 2009).
Sage's Answer (CPN118), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Mar. 23, 2009).
Defs' MSJ (CPN136), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Apr. 17, 2009).
Infor's Amended Answer (CPN139), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(May 4, 2009).
SAP's 1st Amended Answer (CPN140), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(May 4, 2009).
Aloft Opposition to Defs' MFSJ (CPN156), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(May 22, 2009).
Aloft Surreply to MFSJ (CPN165), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Jun. 19, 2009).
Report and Recommendation of Magistrate (CPN175), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Aug. 10, 2009).
Defs' Objection to Love's SJM (CPN177), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Aug. 21, 2009).
ORDER Adopting Recommendation and Denying MSJ (CPN182), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Aug. 28, 2009).
Jnt Claim (CPN196), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Sep. 29, 2009).
Aloft's Opening Claim Construction Brief (CPN203), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Oct. 13, 2009).
Oracle's MSJ of Invalidity (CPN207), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Oct. 27, 2009).
Oracle's Responsive Claim Construction Brief (CPN208), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Oct. 27, 2009).
Aloft's Response Re MSJ of Invalidity (CPN212), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Nov. 6, 2009).
Aloft's Reply to Defs' Response Claim Construction Brief (CPN213), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Nov. 6, 2009).
Defs' Reply (CPN214), Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Nov. 12, 2009).
Scottrade's Answer (CPN037), Case No. 6:08-cv-00304 (ED. Tex. (Tyler Div.))(Dec. 7, 2009).
Scottrade's Answer (CPN053), Case No. 6:08-cv-00304 (ED. Tex. (Tyler Div.))(Dec. 30, 2009).
Hall's Answer (CPN068), Case No. 6:08-cv-00304 (ED. Tex. (Tyler Div.))(Feb. 5, 2010).
Fair Issac's Answer (CPN081), Case No. 6:08-cv-00304 (ED. Tex. (Tyler Div.))(Mar. 24, 2010).
Defs' First Amended Invalidity Contentions, Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Sep. 11, 2009).
Infors' Amended Initial Disclosures, Case No. 6:08-cv-00051 (ED. Tex. (Tyler Div.))(Sep. 21, 2009).
Palisade Corp.; Analytical Power Tools Update vol. 3, #2, "Top Rank: Revolutionizing "What If" Analysis!".
Palisade Corp.; "User's Guide, Precision Tree, Decision Analysis Add-In for Microsoft Excel"; Oct. 2004.
Palisade Corp.; "Guide to Using, Top Rank, What-If Analysis Add-In for Microsoft Excel and Lotus 1-2-3"; Jul. 2000.
Clemen, Robert T., "Making Hard Decisions, An Introduction to Decision Analysis", Second Edition; 1996.
Clemen, Robert T., "Making Hard Decisions, An Introduction to Decision Analysis"; 1991.
Hoy, Wayne K., Tarter, C. John, "Administrators Solving the Problem of Practice, Decision-Making Concepts, Cases, and Consequences"; 1995.
ADA Decision Systems, "DPL Standard Version User Guide"; 1995.
Barabba, V., "Meeting of the Minds: Creating the Market-Based Enterprise," Harvard Business School Press: Boston; 1995.
Equis International, "MetaStock For Windows 95 & NT User's Manual Version 6.5"; 1997.
Palisade Corp.; "@RISK: Risk Analysis and Simulation Add-In for Microsoft Excel or Lotus 1-2-3 User's Manual"; 1995.
Palisade Corp.; "TopRank: Revolutionizing "What-if" Analysis!"; Analytical Power Tools Update vol. 3, No. 3; 1995.
Palisade Corp.; "TopRank: Revolutionizing "What-if" Analysis!"; Analytical Power Tools Update vol. 3, No. 4, 1995.
ADA Decision Systems; DPL Advanced Version User Guide; 1995.
Palisade Corporation; "@RISK: Risk Analysis and Simulation Add-In for Microsoft Excel," Windows or Apple Macintosh Version, Release 1.12 User's Guide; Jul. 1, 1993.
Palisade Corporation; @ RISK, The @ RISK Tutorial.
Palisade Corporation; @ RISK Reference Guide.
Palisade Corporation; @ RISK, "Worlds Best Risk Analysis Software".
Palisade Corporation; @ RISK, "Plant Decision Trees Right in Your Spreadsheet".
Palisade Corporation; "@RISK: Risk Analysis and Simulation Add-In for Microsoft Excel," Windows Version User's Guide; Feb. 1, 1995.
Haeckel, Stephan H.; "Adaptive Enterprise, Creating and Leading Sense-and-Respond Organizations"; 1999.
Kirkwood, Craig W.; "An Overview of Methods for Applied Decision Analysis"; Interfaces 22:3; Nov.-Dec. 1992.
Krumm, F.W., Rolle, C.F., "Management and Application of Decision and Risk Analysis in Du Pont"; Interfaces 22:3; Nov.-Dec. 1992.
Bhargava, H. K., et al.; "Beyond Spreadsheets: Tools for Building Decision Support Systems"; IEEE Computer vol. 32, pp. 31-39; Mar. 1999.
Raiffa, Howard; "Decision Analysis, A Personal Account of how it got Started and Evolved"; Operations Research vol. 50, No. 1, pp. 179-185; Jan.-Feb. 2002.
Howard, Ronald A.; "An Assessment of Decision Analysis"; Operations Research vol. 28, No. 1, pp. 4-27; Jan.-Feb. 1980.
Howard, Ronald A.; "Decision Analysis: Practice and Promise"; Management Science vol. 34. No. 6, pp. 679-695; Jun. 1988.
Bodily, Samuel E., Allen, Michael S.; "A Dialogue Process for Choosing Value-Creating Strategies"; Interfaces 29:6, pp. 16-28; Nov.-Dec. 1999.
Henrion, et al.; "Innovations in Integrated Assessment: The Tracking and Analysis Framework (TAF)"; Presented at the Air and Waste Management Conference on Acid Rain and Electric Utilities, Jan. 1997, Scottsdale, Arizona.
Business Wire, "Lumina Decision Systems Powers Up Business Modeling with Analytica 2.0; New Versions of Analytica Feature OLE Linking and ODBC Integration"; Jul. 1999.
Henrion, Max; "Reusable Influence Diagram Modules for Rapid Program Planning and Decision Analysis"; Lumina Decision Systems Phase I SBIR Final Report Apr. 20, 1996.
Younes, Hakan L.; "Current Tools for Assisting Intelligent Agents in Real-Time Decision Making"; Thesis Paper at Royal Institute of Technology School of Electrical Engineering and Information Technology; Dec. 1998.
Sweeney, John; "Product Review: Option Station, Version 1.2 Build 6"; Stocks & Commodities V15:14 (659-662).
Palisade Corp.; "TopRank: Revolutionizing "What-if" Analysis!"; Analytical Power Tools Update vol. 3, No. 2; 1995.
Palisade Corp.; "User's Guide, Precision Tree, Decision Analysis Add-In for Microsoft Excel"; Oct. 2004.
Prevision, Inc.; "Strategist User Manual, Beta Version 1.0.B.14"; Aug. 1997.
Eschenbach, Ted G., "Spiderplots versus Tornado Diagrams for Sensitivity Analysis"; Interfaces 22:6, pp. 40-46; Nov.-Dec. 1992.
Schutzmen, Fred G.; "Product Review: Trade Station v. 3.5"; Stocks & Commodities v13, pp. 586-589.
Sweeney, John; "Product Review: Trade Station version 4, Build 15"; Stocks & Commodities v14.14, pp. 649-654.
Omega Research, Inc.; "Reference Manual: Omega Research Analysis Techniques"; 1997.

Omega Research, Inc.; "TradeStation User's Manual Version 4"; 1997.
Kusnic, et al.; "The Unifying Vision Process: Value Beyond Traditional Decision Analysis in Multiple-Decision-Maker Environments"; Interfaces 22:6, pp. 150-166; Nov.-Dec. 1992.
Hegdal, et al.; "Production Forecasting of an Unstable Compacting Chalk Field Using Uncertainty Analysis"; Society of Professional Engineers, SPE 50644, pp. 149-160; Oct. 1998.
Murtha, J. A.; "Decisions Involving Uncertainty: An @RISK Tutorial for the Petroleum Industry"; 1995.
Landmark Graphics Corp.; "Software Requirements Specification: 3M Sensitivity Analysis"; Nov. 1996.
"Aries for Windows—The Integrated Production, Reserve and Economic Evaluation System".
Screen images of ARIES Program output displays.
Beck, Gary F.; "Examination of MWD Wireline Replacement by Decision Analysis Methods: Two Case Histories"; The Log Analyst, pp. 62-80; May-Jun. 1997.
Megil, Robert E.; "An Introduction to Exploration Economics, Third Edition"; 1988.
Goodson, et al.; "Strategic Planning of the NWS Offshore Expansion Activities"; Society of Petroleum Engineers, SPE 50112, pp. 361-365; 1998.
Skinner, David C.; "Introduction to Decision Analysis, A Practitioner's Guide to Improving Decision Quality, Second Edition"; 1999.
Murtha, J. A.; "Monte Carlo Simulation: Its Status and Future," Society of Petroleum Engineers, SPE 37932, pp. 361-373; Apr. 1997.
Neal, Larry Jr.; "Use of the Decision Quality Process for Strategic Planning in the Duri Field, Indonesia," Society of Petroleum Engineers, SPE 28743, pp. 31-46; Nov. 1994.
Thompson, R. R.; "A Methodology to Quantify Uncertainties and Leveraging Issues in Oil and Gas Project Economics," Society of Petroleum Engineers, SPE 19861, pp. 741-750; Oct. 1989.
GLOBEtrotter Software; "FLEXlm End User Manual," FLEXlm version 6.1; Oct. 1998.
Economic Analysis Systems, Inc.; "TERAS Evaluation Module Tutorial"; 1996.
Economic Analysis Systems, Inc.; "TERAS Evaluation Module User's Manual"; 1997.
General Motors Decision Support Center; "A Coach's Guide to the DDP"; Apr. 1993.
2010_10_08d01 Dfts Invalidity Contentions & Disclosures under PR 3-3 & 3-4.
2010_10_08d02 Dfts Invalidity Contentions-Chart A01.
2010_10_08d03 Dfts Invalidity Contentions-Chart A02.
2010_10_08d04 Dfts Invalidity Contentions-Chart A03.
2010_10_08d05 Dfts Invalidity Contentions-Chart A04.
2010_10_08d06 Dfts Invalidity Contentions-Chart A05.
2010_10_08d07 Dfts Invalidity Contentions-Chart A06.
2010_10_08d08 Dfts Invalidity Contentions-Chart A07.
2010_10_08d09 Dfts Invalidity Contentions-Chart A08.
2010_10_08d10 Dfts Invalidity Contentions-Chart A09.
2010_10_08d11Dfts Invalidity Contentions-Chart A10.
2010_10_08d12Dfts Invalidity Contentions-Chart A11.
2010_10_08d13Dfts Invalidity Contentions-Chart A12.
2010_10_08d14Dfts Invalidity Contentions-Chart A13.
2010_10_08d15Dfts Invalidity Contentions-Chart A14.
2010_10_08d16Dfts Invalidity Contentions-Chart A15.
2010_10_08d17Dfts Invalidity Contentions-Chart A16.
2010_10_08d18Dfts Invalidity Contentions-Chart A17.
2010_10_08d19Dfts Invalidity Contentions-Chart A18.
2010_10_08d20Dfts Invalidity Contentions-Chart A19.
2010_10_08d21Dfts Invalidity Contentions-Chart A20.
2010_10_08d22Dfts Invalidity Contentions-Chart A21.
2010_10_08d23Dfts Invalidity Contentions-Chart A22.
2010_10_08d24Dfts Invalidity Contentions-Chart A23.
2010_10_08d25Dfts Invalidity Contentions-Chart A24.
2010_10_08d26Dfts Invalidity Contentions-Chart A25.
2010_10_08d27Dfts Invalidity Contentions-Chart B01.
2010_10_08d28Dfts Invalidity Contentions-Chart B02.
2010_10_08d29 Dfts Invalidity Contentions-Chart B03.
2010_10_08d30Dfts Invalidity Contentions-Chart B04.
2010_10_08d31Dfts Invalidity Contentions-Chart B05.
2010_10_08d32 Dfts Invalidity Contentions-Chart B06.
2010_10_08d33Dfts Invalidity Contentions-Chart B07.
2010_10_08d34Dfts Invalidity Contentions-Chart B08.
2010_10_08d35 Dfts Invalidity Contentions-Chart B09.
2010_10_08d36Dfts Invalidity Contentions-Chart B10.
2010_10_08d37Dfts Invalidity Contentions-Chart B11.
2010_10_08d38Dfts Invalidity Contentions-Chart B12.
2010_10_08d39Dfts Invalidity Contentions-Chart B13.
2010_10_08d40Dfts Invalidity Contentions-Chart B14.
2010_10_08d41Dfts Invalidity Contentions-Chart B15.
2010_10_08d42Dfts Invalidity Contentions-Chart B16.
2010_10_08d43Dfts Invalidity Contentions-Chart B17.
2010_10_08d44Dfts Invalidity Contentions-Chart B18.
2010_10_08d45Dfts Invalidity Contentions-Chart B19.
2010_10_08d46Dfts Invalidity Contentions-Chart B20.
2010_10_08d47Dfts Invalidity Contentions-Chart B21.
2010_10_08d48Dfts Invalidity Contentions-Chart B22.
2010_10_08d49Dfts Invalidity Contentions-Chart B23.
2010_10_08d50Dfts Invalidity Contentions-Chart B24.
2010_10_08d51Dfts Invalidity Contentions-Chart B25.
TERAS Suite 1998 (Release 1991.1.0 alpha 3).
ARIES for Windows (Release Nov. 1996).
ARIES Help File.
Owen, "The Use of Influence Diagrams In Structuring Complex Decision Problems," 1978, Strategic Decisions Group.
Office Action Summary from U.S. Appl. No. 09/708,154 which was mailed on Jul. 3, 2003.
Office Action Summary from U.S. Appl. No. 09/708,154 which was mailed on Apr. 22, 2004.
Office Action Summary from U.S. Appl. No. 09/708,154 which was mailed on Jun. 9, 2004.
Notice of Allowance from U.S. Appl. No. 09/708,154 which was mailed on Oct. 25, 2004.
Office Action Summary from U.S. Appl. No. 11/045,543 which was mailed on Dec. 1, 2006.
Office Action Summary from U.S. Appl. No. 11/045,543 mailed on Aug. 27, 2007.
Final Office Action Summary from U.S. Appl. No. 11/045,543 mailed on Nov. 27, 2007.
Notice of Allowance from U.S. Appl. No. 11/045,543 which was mailed on Mar. 17, 2008.
Office Action Summary from U.S. Appl. No. 11/768,861 which was mailed on Sep. 10, 2009.
Notice of Allowance from U.S. Appl. No. 11/768,861 which was mailed on Mar. 13, 2009.
Office Action Summary from U.S. Appl. No. 11/768,836 mailed on Sep. 9, 2008.
Notice of Allowance from U.S. Appl. No. 11/768,836 mailed on Jul. 13, 2009.
Office Action Summary from U.S. Appl. No. 11/768,815 which was mailed on Aug. 28, 2008.
Notice of Allowance from U.S. Appl. No. 11/768,815 which was mailed on Nov. 24, 2008.
Office Action Summary from U.S. Appl. No. 11/828,115 which was mailed on Sep. 29, 2008.
Notice of Allowance from U.S. Appl. No. 11/828,115 which was mailed on Dec. 31, 2008.
Office Action Summary from U.S. Appl. No. 11/828,129 which was mailed on Oct. 17, 2008.
Notice of Allowance from U.S. Appl. No. 11/828,129 mailed on May 22, 2009.
Notice of Allowance from U.S. Appl. No. 11/828,129 mailed on Sep. 29, 2009.
Dr. Michael W. Kusnic, "Collaborative Decisionmaking Platform: Value Creation and Organizational Learning through Collaborative Decisionmaking," Strategic Business Processes, inc.
Dr. Michael W. Kusnic, "The Potential for the Knowledge Management Business: Lessons Learned from the Experience at General Motors," Strategic Business Processes, inc.
Michael W. Kusnic and Daniel Owen, "An Achievable Vision for the Strategic Knowledge Management Business," Strategic Business Processes, inc.

Ogescu, C.; Plaisanu, C.; Bistriceanu, D.; "Web Based Platform for Management of Heterogeneous Medical Data." Automation, Quality and Testing, Robotics, 2008. AQTR 2008. IEEE International Conference on vol. 3, May 22-25, 2008 pp. 257-260 Digital Object Identifier 10.1109/AQTR.2008.4588923.

Jingdong Cui, "Consumer Decision Process Model in Multi-channel Retail Banking;" Service Systems and Service Management, 2007 International Conference on Jun. 9-11, 2007 pp. 1-6 Digital Object Identifier 10.1109/ICSSSM.2007.4280113.

Lee, Sang-Chul; Bajcsy, P.; "Understanding Challenges in Preserving and Reconstructing Computer-Assisted Medical Decision Processes." Machine Learning and Applications, 2007. ICMLA 2007. Sixth International Conference on Dec. 13-15, 2007 pp. 524-529 Digital Object Identifier 10.1109/ICMCLA.2007.92.

Miller, L.L.; Nilakanta, S.; "Design of Organizational Decision Support Systems: The Use of a Data Extraction Scheme to Facilitate Model-Database Communication." System Sciences, 1991. Proceedings of the Twenty-Fourth Annual Hawaii International Conference on vol. iv, Jan. 8-11, 1991 pp. 67-72 vol. 4.

Yato, A.; Rodriguez, J.R.; Cangur, G.; Boonbutra, R.; Kumte, R.; Lahagu, R.; "Car Purchase Decisions." Management of Engineering and Technology, 2001. PICMET '01. Portland International Conference on vol. 1, Jul. 29-Aug. 2, 2001 p. 126 vol. 1 Digital Object Identifier 10.1109/PICMET.2001.951835.

Arunkumar, S.; Jain, S.K.; "Multimedia as Value Enabler for Decision Making in Virtual Enterprises." Engineering and Technology Management, 1996. IEMC 96. Proceedings, International Conference on Aug. 18-20, 1996 pp. 34-41 Digital Object Identifier 10.1109/IEMC.1996.547786.

J. Douglas; 011ila, Richard G.; "Analysis of Complex Decisionmaking Processes." Hill Systems, Man and Cybernetics, IEEE Transactions on vol. 8, Issue 3, Mar. 1978 pp. 193-204 Digital Object Identifier 10.1109/TSMC.1978.4309930.

Klein, R.W.; Dame, M.A.; Dittus, R.S.; DeBrota, D.J.; "Using Discrete Event Simulation to Evaluate Housestaff Work Schedules." Simulation Conference, 1990. Proceedings., Winter Dec. 9-12, 1990 pp. 738-742 Digital Object Identifier 10.1109/WSC.1990.129606.

Zhang, N.; Lu, W.F.; "A Framework for Managing Enterprise Knowledge for Collaborative Decision Support." Industrial Informatics, 2007 5th IEEE International Conference on vol. 1, Jun. 23-27, 2007 pp. 517-522.

Zhang, N.; He, W.; Lee, E.W.; "Address Supply Chain Visibility from Knowledge Management Perspective." Industrial Informatics 2008. INDIN 2008. 6th IEEE International Conference on Jul. 13-16, 2008 pp. 865-870 Digital Object Identifier 10.1109/INDIN.2008.4618222.

Indiramma, M.; Anandakumar, K.R.; "Collaborative Decision Making Framework for Multi-agent System." Computer and Communication Engineering, 2008. ICCCE 2008. International Conference on May 13-15, 2008 pp. 1140-1146 Digital Object Identifier 10.1109/ICCCE.2008.4580785.

Groppe, M.; Bui, M.; "Study of Cockpit's Perspective on Human-Human Interactions to Guide Collaborative Decision Making Design in Air Traffic Management." Advances in Computer-Human Interaction, 2008 First International Conference on Feb. 10-15, 2008 pp. 107-113 Digital Object Identifier 10.1109/ACHI.2008.51.

Jiabin Xie; Nerlikar, A.; Glover, J.R.; McKinley, B.A.; "An ICU Protocol Development and Management System." Computer-Based Medical Systems, 2000. CBMS 2000. Proceedings. 13th IEEE Symposium on Jun. 22-24, 2000 pp. 43-47 Digital Object Identifier 10.1109/CBMS.2000.856872.

Aboy, M.; McNames, J.; Tran Thong; Tsunami, D.; Ellenby, M.S.; Goldstein, B.; "An Automatic Beat Detection Algorithm for Pressure Signals." Biomedical Engineering, IEEE Transactions on vol. 52, Issue 10, Oct. 2005 pp. 1662-1670 Digital Object Identifier 10.1109/TBME.2005.855725.

Pham, T.D.; Honghui Wang; Xiaobo Zhou; Dominik Beck; Brandl, M.; Hoehn, G.; Azok, J.; Brennan, M.-L.; Hazen, S.L.; Li, K.; Wong, S.T.C.; "Computational Prediction Models for Early Detection of Risk of Cardiovascular Events Using Mass Spectrometry Data." Information Technology in Biomedicine, IEEE Trans on vol. 12, Issue 5, Sep. 2008 pp. 636-643.

Poulsen, R.S.; Pedron, I.; "Region of Interest Finding in Reduced *Resolution* Colour Imagery. Application to Cancer Cell Cetection in Cell Overlaps and Clusters." Engineering in Medicine and Biology Society, 1995., IEEE 17th Annual Conference vol. 1, Sep. 20-23, 1995 pp. 499-500 vol. 1 Digital Object Identifier 10.1109/IEMBS.1995.575219.

Larsson, M.; "An Adaptive Predictive Approach to Emergency Frequency Control in Electric Power Systems." Decision and Control, 2005 and 2005 European Control Conference. CDC-ECC '05. 44th IEEE Conference on Dec. 12-15, 2005 pp. 4434-4439.

Johnson, Timothy L.; Wright, Stuart C.; Segall, Adrian; "Filtering of Muscle Artifact from the Electroencephalogram." Biomedical Engineering, IEEE Transactions on vol. BME-26, Issue 10, Oct. 1979 pp. 556-563 Digital Object Indentifier 10.1109/TBME.1979.326443.

Benotto, F.; Bressani, T.; Calvo, D.; Iazzi, F.; Lamberti, C.; "The Trigger of the TOFUS Detector." Nuclear Science Symposium and Medical Imaging Conference, 1991., Conference Record of the 1991 IEEE Nov. 2-9, 1991 pp. 584-588 vol. 1 Digital Object Identifier 10.1109/NSSMIC.1991.259004.

DeFranco-Tommarello, J.; Deek, F.P.; "Collaborative Problem Solving and Groupware for Software Development." Engineering Management Review, IEEE vol. 35, Issue 4, Fourth Quarter 2007 pp. 54-54 Digital Object Identifier 10.1109/EMR.2007.4489950.

Sculley et al., "B2B Exchanges: The Killer Application in the Business-to-Business Internet Revolution," ISI Publications, 2000, pp. 195-247.

"CPFR: Collaborative Planning, Forecasting, and Replenishment Voluntary Guidelines," Voluntary Interindustry Commerce Standards, 1998.

Sriram et al., "Computer-Aided Cooperative Product Development: A Case Study," International Journal of Systems Automation: Research and Applications (SARA), 1991, vol. 1, No. 1, pp. 89-112.

Miller et al., "Development of Automated Aids for Decision Analysis," Technical Report, Stanford Research Institute, May 1976.

Sriram et al., "DICE: An Object-Oriented Programming Environment For Cooperative Engineering Design," Artificial Intelligence in Engineering Design, vol. 3, Academic Press Inc., 1992, pp. 303-366.

"Strategic Management of R&D: Overview," Strategic Decisions Group, May 22, 1995.

U.S. Patent File History for U.S. Appl. No. 09/270,007, filed Mar. 16, 1999.

U.S. Patent File History for U.S. Appl. No. 09/311,150, filed May 13, 1999.

Logcher et al., "Ghost: A Project Network Generator," J. of Computing in Civil Engineering, ASCE, vol. 2, No. 3, Jul. 1988, pp. 239-254.

Guttman, "Merchant Differentiation through Integrative Negotiation in Agent-mediated Electronic Commerce," Massachusetts Institute of Technology, 1998.

Holtzman, "Intelligent Decision Systems," Addison-Wesley Publishing Company, Inc., 1989, pp. 56-106.

Kano et al., "International Multi-Company Collaborative Engineering: A Study of Japanese Engineering and Construction Firms," Massachusetts Institute of Technology, 1994.

"MIT Libraries' catalog—Barton—Full Catalog—Full Record," Massachusetts Institute of Technology, http://library.mit.edu/item/000911321, last accessed on Jan. 29, 2008.

Declaration associated with Civil Case No. 2:06-cv-440.

Subpoena associated with Civil Case No. 2:06-cv-440.

Nessralla, "*Letter re Sky Technologies LLC* v. *SAP AG, SAP Americas, Inc and Oracle Corporation Subpoena for Records of the Massachusetts Institute of Technology*," Jan. 30, 2008.

Sairamesh et al., "NetBazaar: Networked Electronic Markets for Trading Computation and Information Services," Springer-Verlag Berlin Heidelberg, 1998, ECDL'98, LNCS 1513, pp. 839-856.

"The Manual Decision Advisor: vol. 1—Project Analysis," Strategic Decisions Group, 1998.

Sanders, "Automated Creation of Clinical-Practice Guidelines from Decision Models," Gillian D. Sanders, Jun. 1998.

Sriram et al., "The MIT Dice Project," Computer, vol. 26, No. 1, 1993, pp. 64-65.

Sriram et al., "Transaction-Management Issues in Collaborative Engineering," J. of Computing in Civil Engineering, ASCE, vol. 6, No. 1, Jan. 1992, pp. 85-105.

"Decision Analysis Software for Microsoft Windows, Student Edition," ADA Decision Systems, 1992.
Barabba et al., "Communication in Action: GM's Dialogue Decision Process," Strategic Communication Management, Dec./Jan. 1997, pp. 24-28.
McNamee et al., "Decision Analysis with Supertree," 2nd Edition, The Scientific Press, pp. 281-304.
"Readings in Electronic Commerce," Addison Wesley Longman, Inc., 1997.
Holtzman, "Intelligent Decision Systems," Stanford University, 1985.
"NetIQ AppManager Suite," NetIQ Corporation, 2005.
Oliver et al. (ed.), "Influence Diagrams, Belief Nets and Decision Analysis," John Wiley & Sons Ltd., 1990.
Buck-Emden et al., "SAP R/3 System: A Client/Server Technology," Addison-Wesley, 1996.
"SunNetManager 2.2.3 User's Guide," Sun Microsystems, Inc., 1995.
"Supertree In Use," SDG Decision Systems, 1986.
"Quick Start: Introduction to Decision Analysis with Supertree, PC Version," SDG Decision Systems, Feb. 1989.
"LO Logisitics Information System."
"MM External Services Management."
"Consignment."
"MM Purchasing Guide."
"Sales."
"R/3 Internet Application Components."
"MM Vendor Evaluation."
Abbas, "The Evolution of Decision Analysis," Department of Management Science and Engineering, Stanford University.
Huang et al., "A Sense-and-Respond Approach to Business Transformation," Proceedings of the IEEE International Conference on E-Commerce Technology for Dynamic Business (CEC-East'04), 2004.
"Dialogue Decision Process: Alternatives."
"A Guide to CPFR Implementation," ECR Europe, Apr. 2001.
"SAP Business-to-Business Procurement."
"System Administration."
"Database Administration."
"EC Enterprise Controlling."
The IDoc Interface Concept.
"FI Financial Accounting."
"IM Investment Management."
"PM Plant Maintenance."
"General Information," EDI (Electronic Data Interchange).
"Configurable Materials in Purchasing."
"ABAP/4 Development Workbench."
"SAP Open Information Warehouse Frontend for Microsoft Excel."
Documentation associated with Civil Action No. 6:08-cv-51.
Owen et al., "Multi-agent trading environment," BT Technol J, vol. 17, No. 3, Jul. 1999, pp. 33-43.
Keeney, Ralph L., Raiffa, Howard, "Decisions With Multiple Objectives-Preferences and Value Tradeoffs" 1975. 588 Pages.
PMSIM Systems, *Understanding PMSIM*, "Volvo, Mekoprint, Hardi International, Kongskilde, Vestas, Ericsson, Müller Print, Bang & Olufsen, Gillette and Tornos Bechler are Just Some of the Many Companies Using PMSIM Today." (1997).
US 7,734,534, 06/2010, Graff (withdrawn)

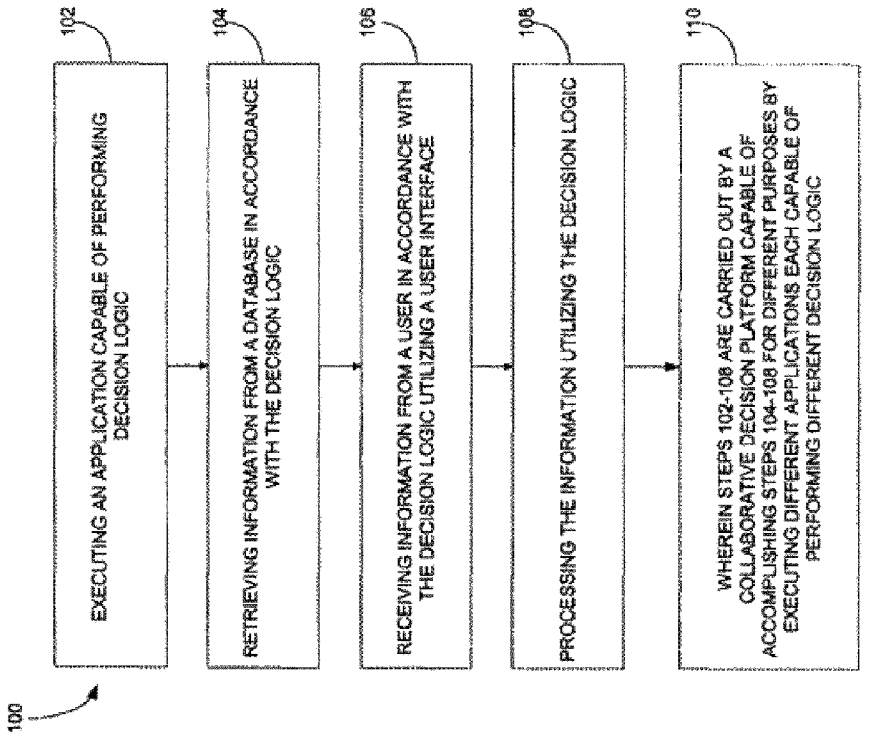

100
102
EXECUTING AN APPLICATION CAPABLE OF PERFORMING DECISION LOGIC
104
RETRIEVING INFORMATION FROM A DATABASE IN ACCORDANCE WITH THE DECISION LOGIC
106
RECEIVING INFORMATION FROM A USER IN ACCORDANCE WITH THE DECISION LOGIC UTILIZING A USER INTERFACE
108
PROCESSING THE INFORMATION UTILIZING THE DECISION LOGIC
110
WHEREIN STEPS 102-108 ARE CARRIED OUT BY A COLLABORATIVE DECISION PLATFORM CAPABLE OF ACCOMPLISHING STEPS 104-108 FOR DIFFERENT PURPOSES BY EXECUTING DIFFERENT APPLICATIONS EACH CAPABLE OF PERFORMING DIFFERENT DECISION LOGIC

Fig. 1

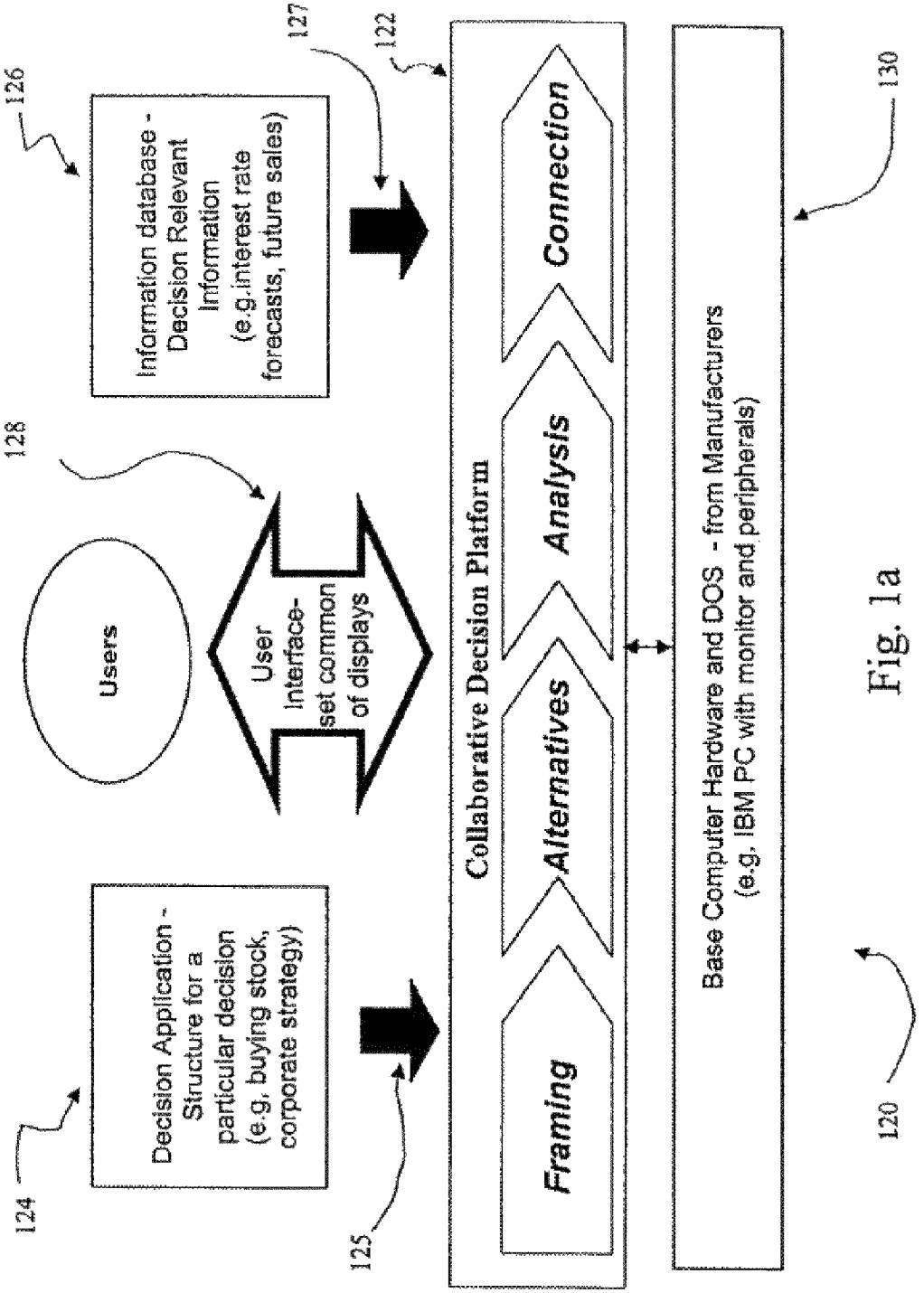

126
Information database - Decision Relevant Information (e.g.interest rate forecasts, future sales)
127
122
128
Users
User Interface- set common of displays
Collaborative Decision Platform
Framing
Alternatives
Analysis
Connection
Base Computer Hardware and DOS - from Manufacturers (e.g. IBM PC with monitor and peripherals)
130
124
Decision Application - Structure for a particular decision (e.g. buying stock, corporate strategy)
125
120

Fig. 1a

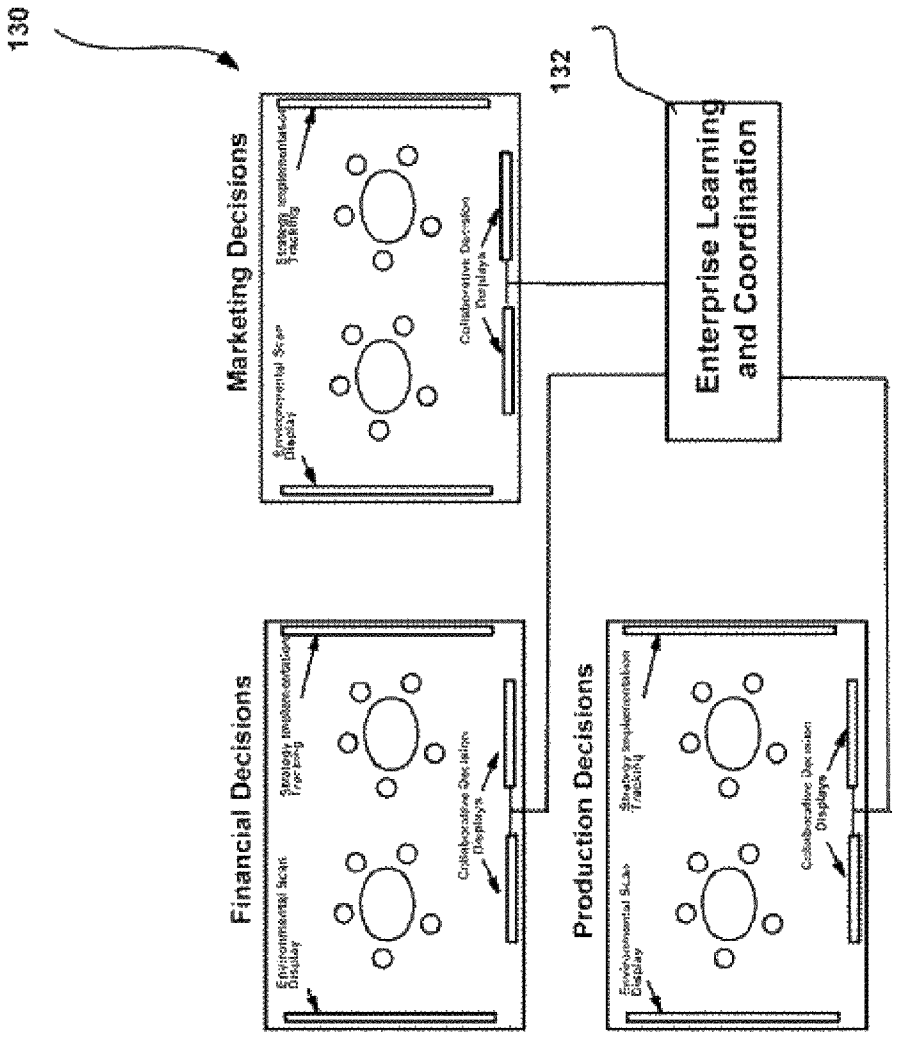

130
132
Marketing Decisions
Financial Decisions
Production Decisions
Enterprise Learning and Coordination

Fig. 1b

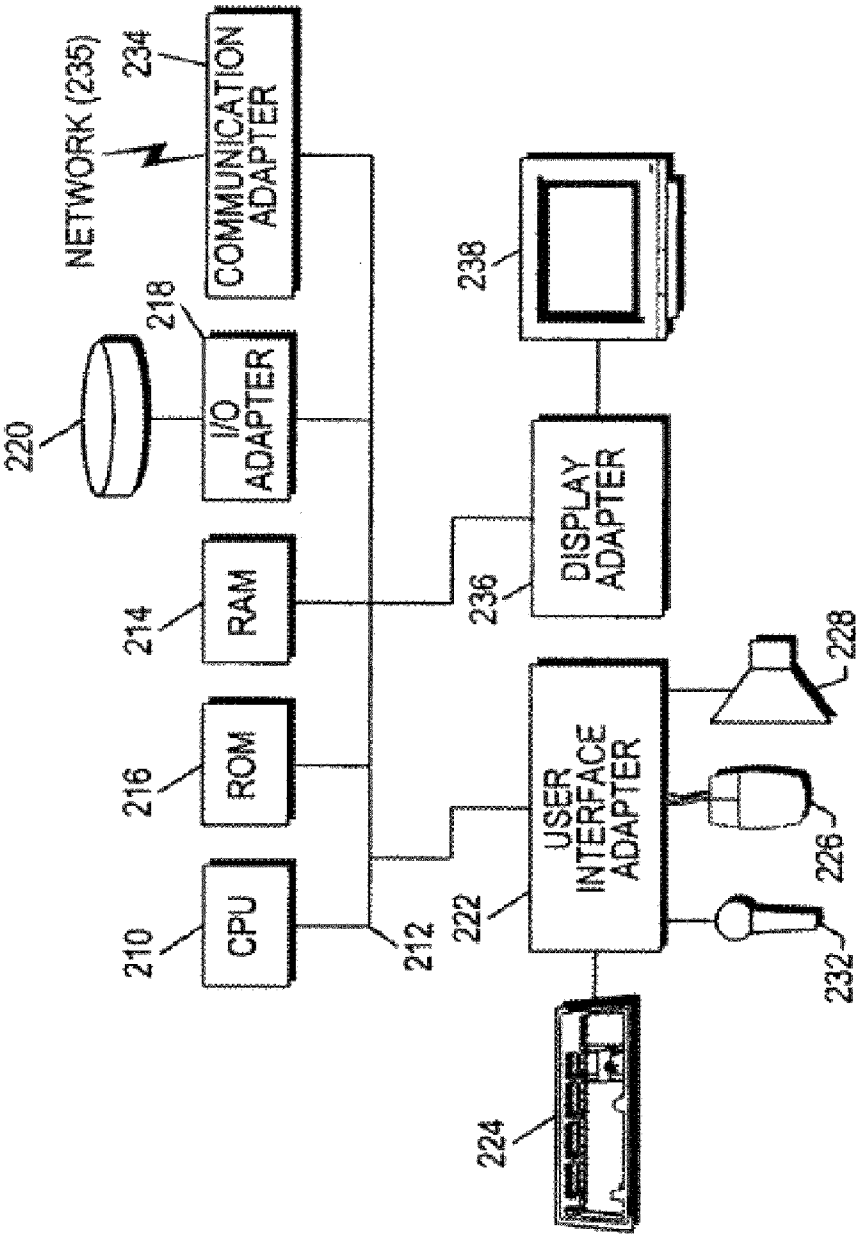
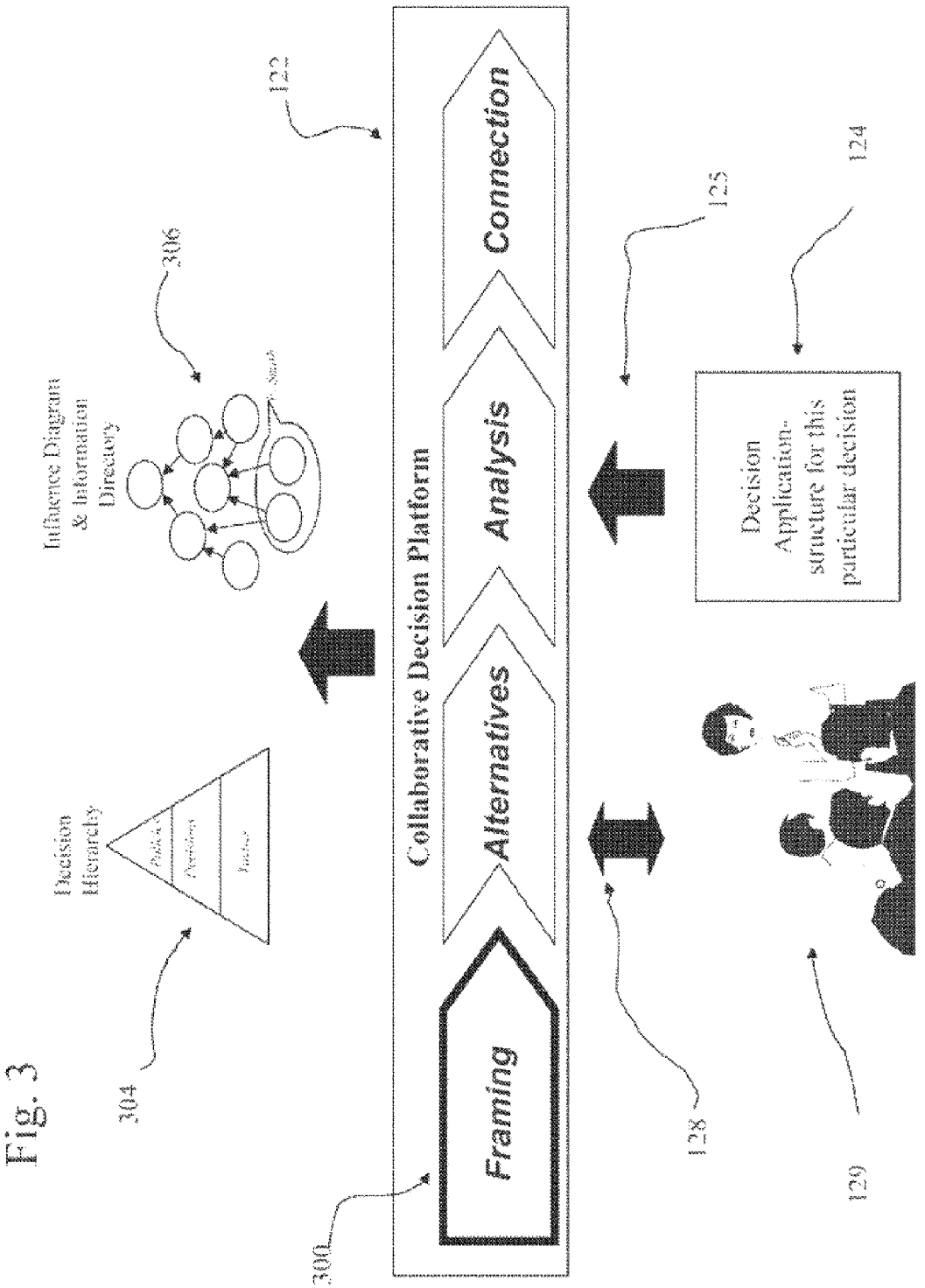

NETWORK (235)
234
COMMUNICATION ADAPTER
218
I/O ADAPTER
220
214
RAM
216
ROM
210
CPU
212
238
DISPLAY ADAPTER
236
USER INTERFACE ADAPTER
222
228
226
232
224

Fig. 2

Fig. 3


Framing
Alternatives
Analysis
Connection
Collaborative Decision Platform
300
122
306
Influence Diagram & Information Directory
304
Decision Hierarchy
125
124
Decision Application-structure for this particular decision
128
129

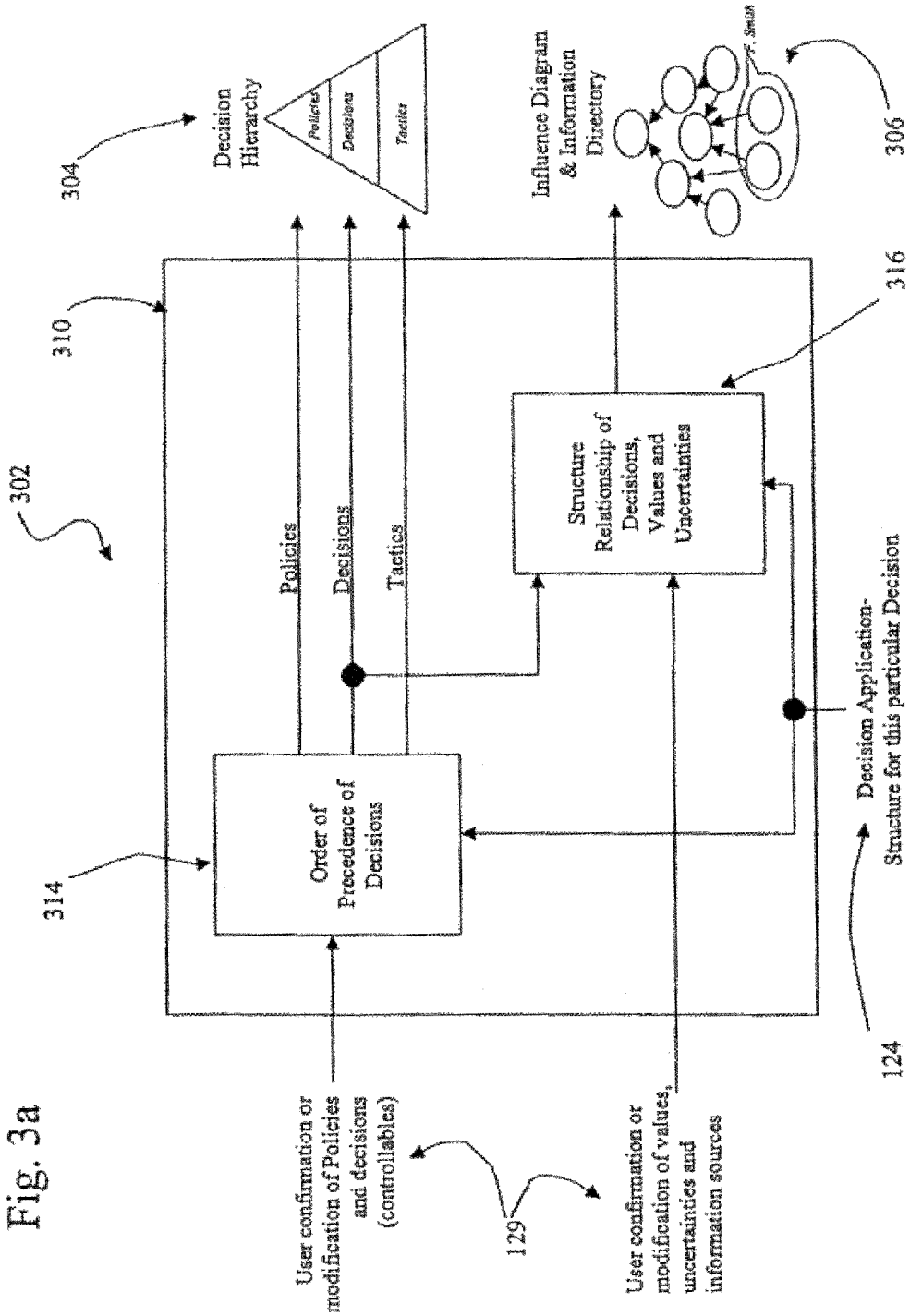
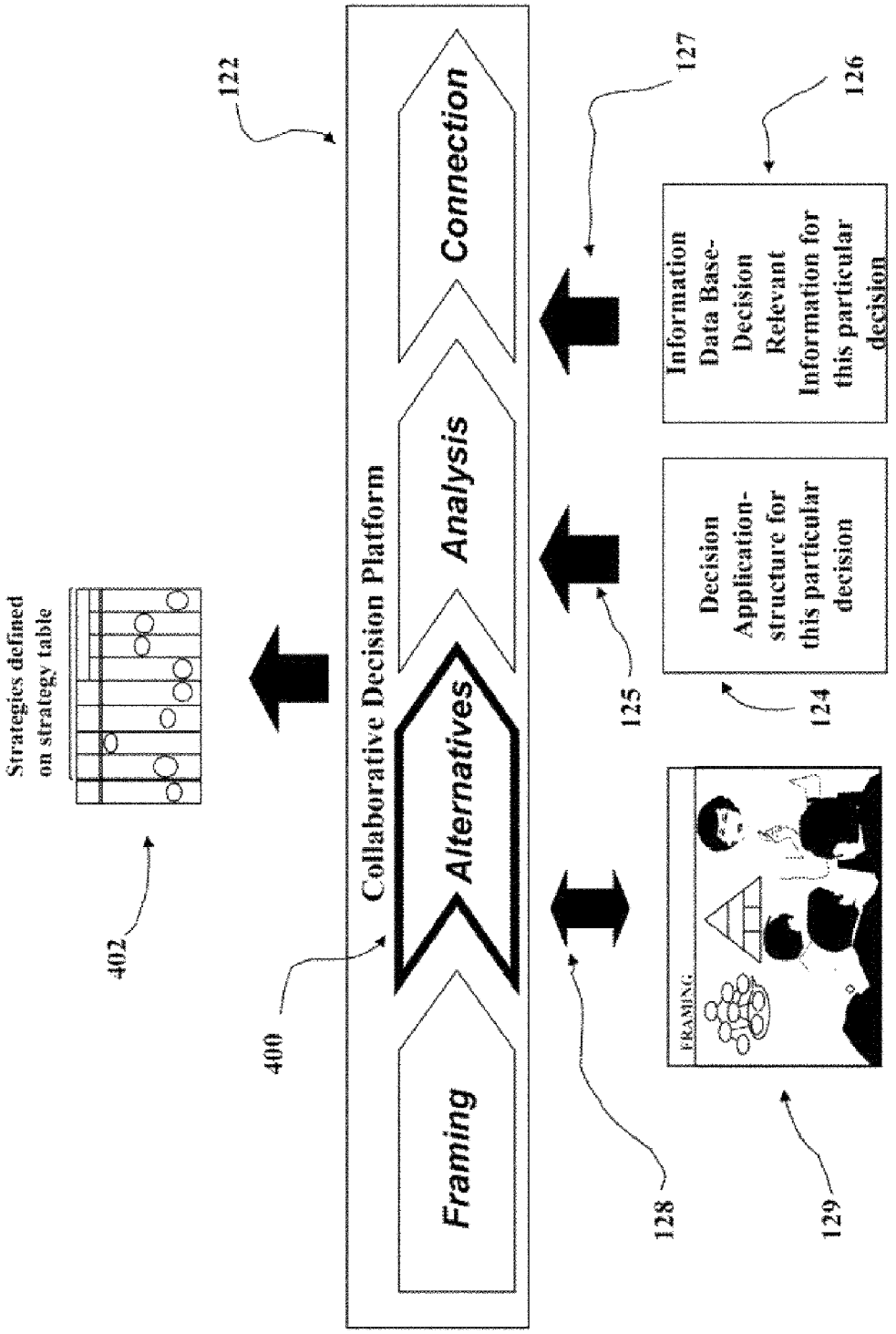

302
304
Decision Hierarchy
Policies
Decisions
Tactics
306
Influence Diagram & Information Directory
310
316
Structure Relationship of Decisions, Values and Uncertainties
Policies
Decisions
Tactics
314
Order of Precedence of Decisions
Decision Application-Structure for this particular Decision
124
User confirmation or modification of Policies and decisions (controllables)
129
User confirmation or modification of values, uncertainties and information sources

Fig. 3a

Fig. 4


122
Collaborative Decision Platform
Framing
Alternatives
Analysis
Connection
400
402
Strategies defined on strategy table
128
129
125
124
Decision Application-structure for this particular decision
127
126
Information Data Base-Decision Relevant Information for this particular decision
FRAMING

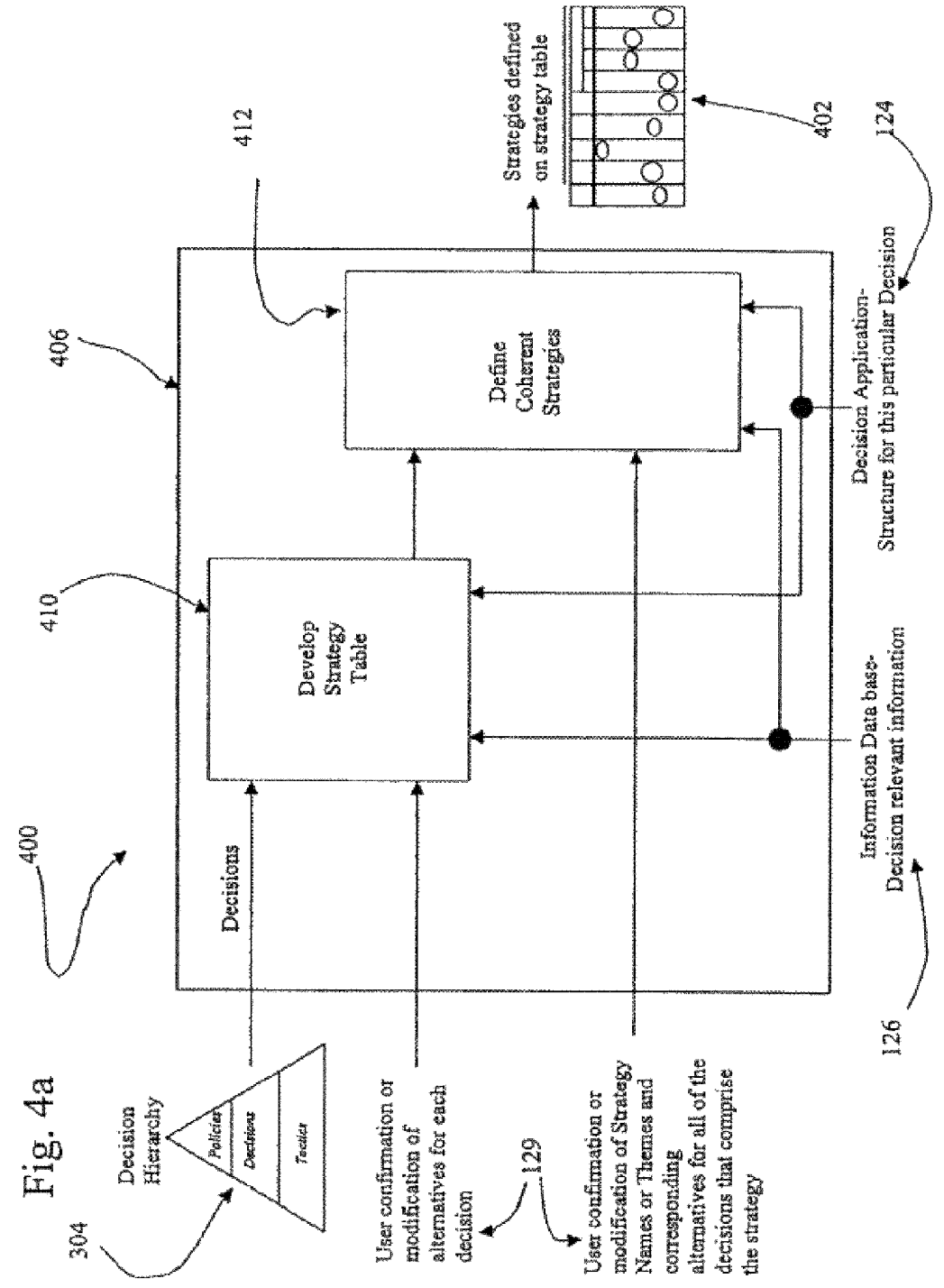
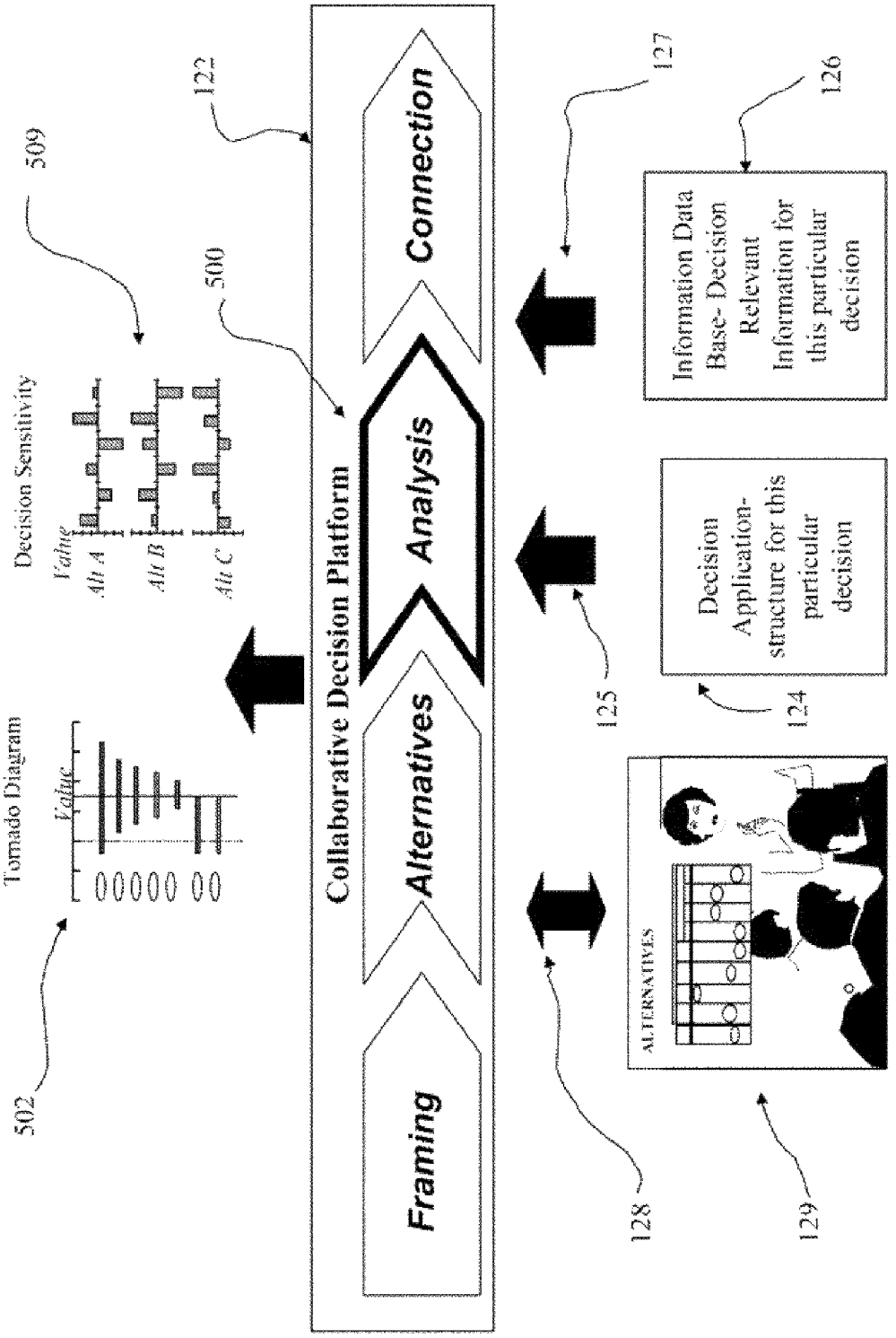

400
406
412
410
Define Coherent Strategies
Develop Strategy Table
Decisions
Strategies defined on strategy table
402
124
Decision Application-Structure for this particular Decision
Information Data base-Decision relevant information
126
Decision Hierarchy
304
User confirmation or modification of alternatives for each decision
129
User confirmation or modification of Strategy Names or Themes and corresponding alternatives for all of the decisions that comprise the strategy

Fig. 4a

Fig. 5


Tornado Diagram
Value
502
Decision Sensitivity
Value
Alt A
Alt B
Alt C
509
500
122
Collaborative Decision Platform
Framing
Alternatives
Analysis
Connection
127
126
Information Data Base- Decision Relevant Information for this particular decision
125
Decision Application-structure for this particular decision
124
ALTERNATIVES
128
129

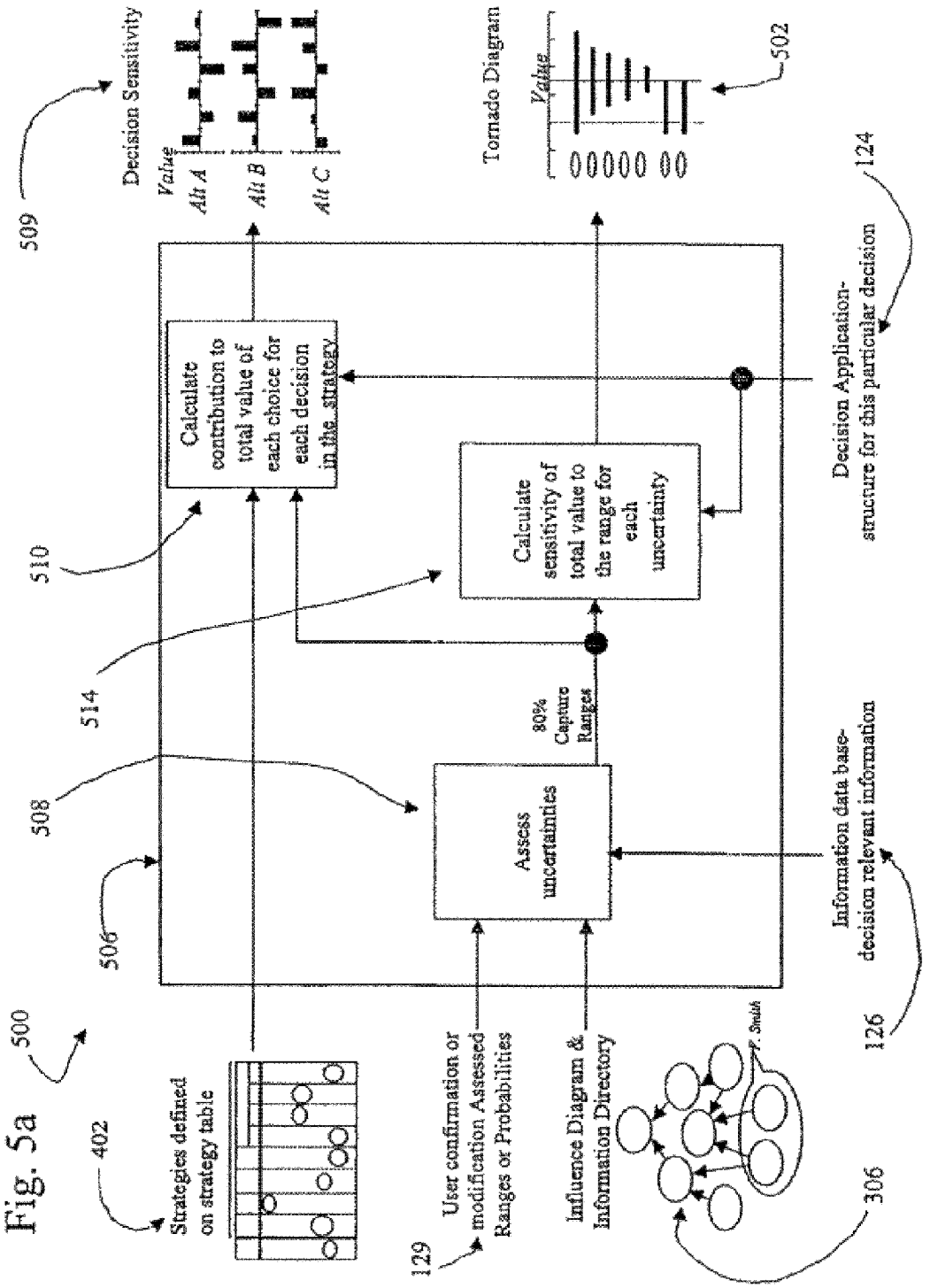


Fig. 5a
500
402
Strategies defined on strategy table
129
User confirmation or modification Assessed Ranges or Probabilities
Influence Diagram & Information Directory
306
126
Information data base-decision relevant information
506
508
514
510
Assess uncertainties
80% Capture Ranges
Calculate sensitivity of total value to the range for each uncertainty
Calculate contribution to total value of each choice for each decision in the strategy
Decision Application-structure for this particular decision
124
Tornado Diagram
Value
502
Decision Sensitivity
Value
Alt A
Alt B
Alt C
509

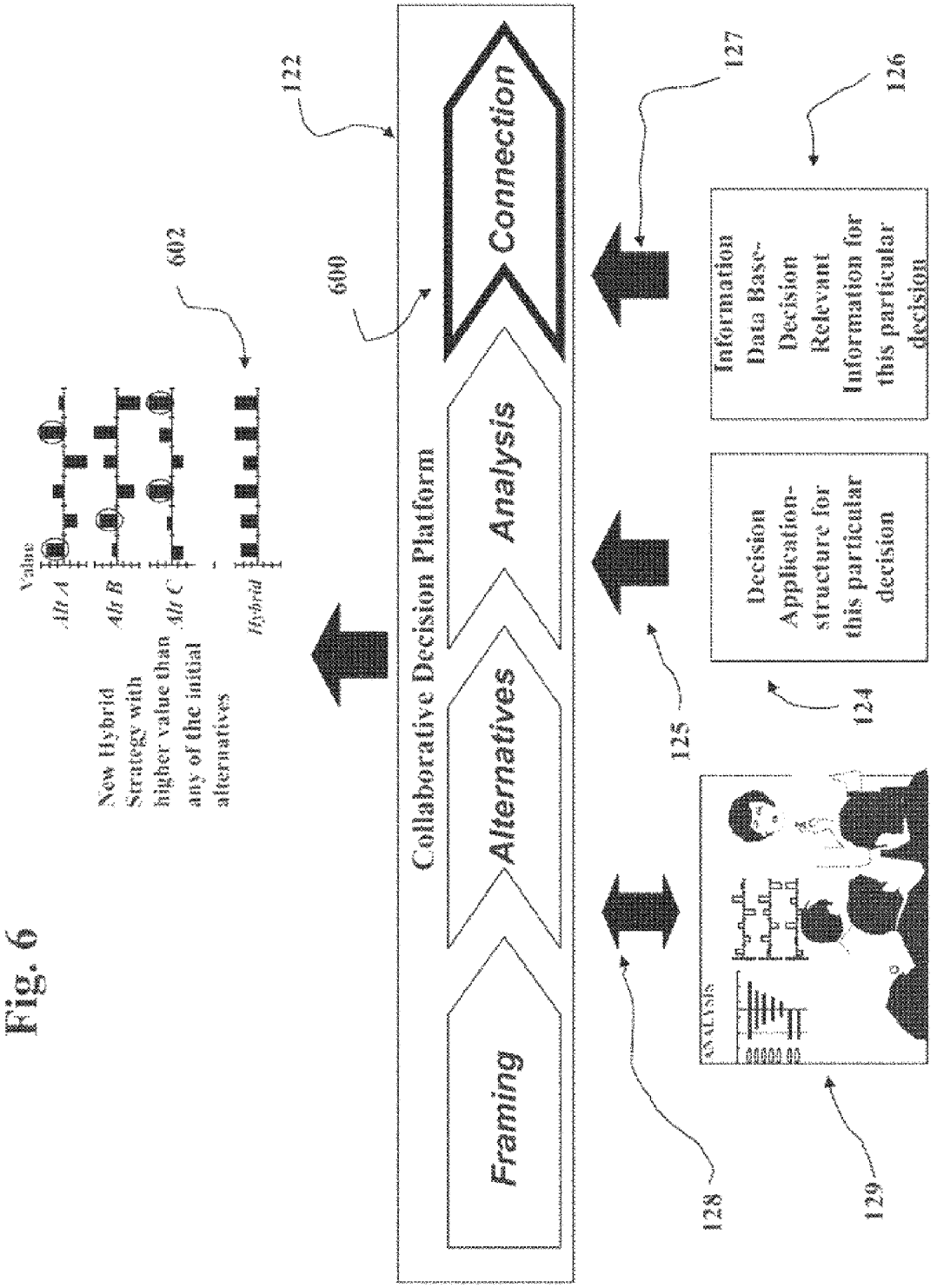
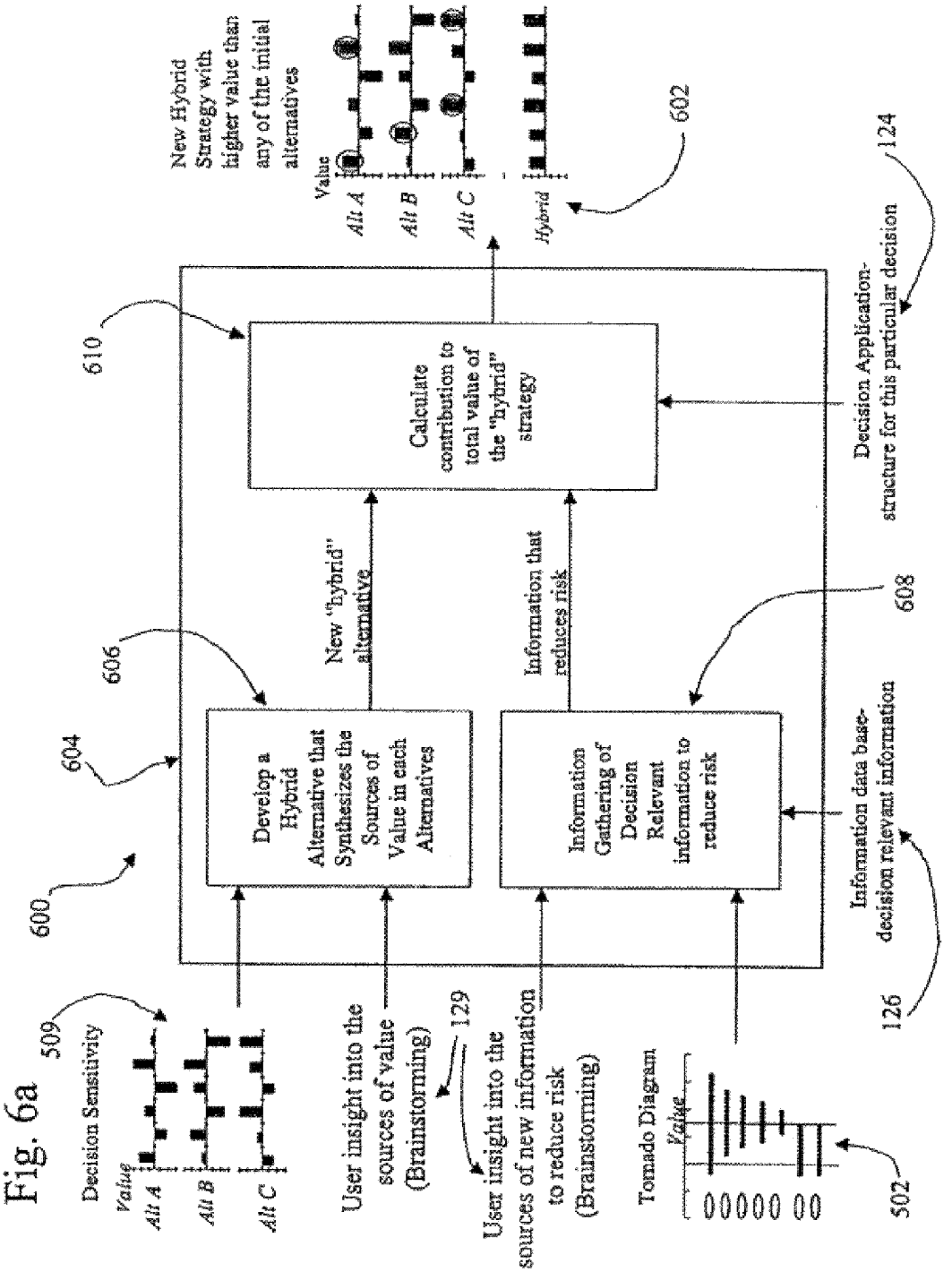

Framing
Alternatives
Analysis
Connection
Collaborative Decision Platform
122
600
602
Value
Alt A
Alt B
Alt C
Hybrid
New Hybrid Strategy with higher value than any of the initial alternatives
125
124
127
126
Decision Application-structure for this particular decision
Information Data Base-Decision Relevant Information for this particular decision
128
129

Fig. 6

Fig. 6a


600
604
606
610
602
608
124
126
509
129
502
Develop a Hybrid Alternative that Synthesizes the Sources of Value in each Alternatives
Information Gathering of Decision Relevant information to reduce risk
Calculate contribution to total value of the "hybrid" strategy
New "hybrid" alternative
Information that reduces risk
Decision Application-structure for this particular decision
Information data base-decision relevant information
New Hybrid Strategy with higher value than any of the initial alternatives
Value
Alt A
Alt B
Alt C
Hybrid
Decision Sensitivity
Value
Alt A
Alt B
Alt C
User insight into the sources of value (Brainstorming)
User insight into the sources of new information to reduce risk (Brainstorming)
Tornado Diagram
Value

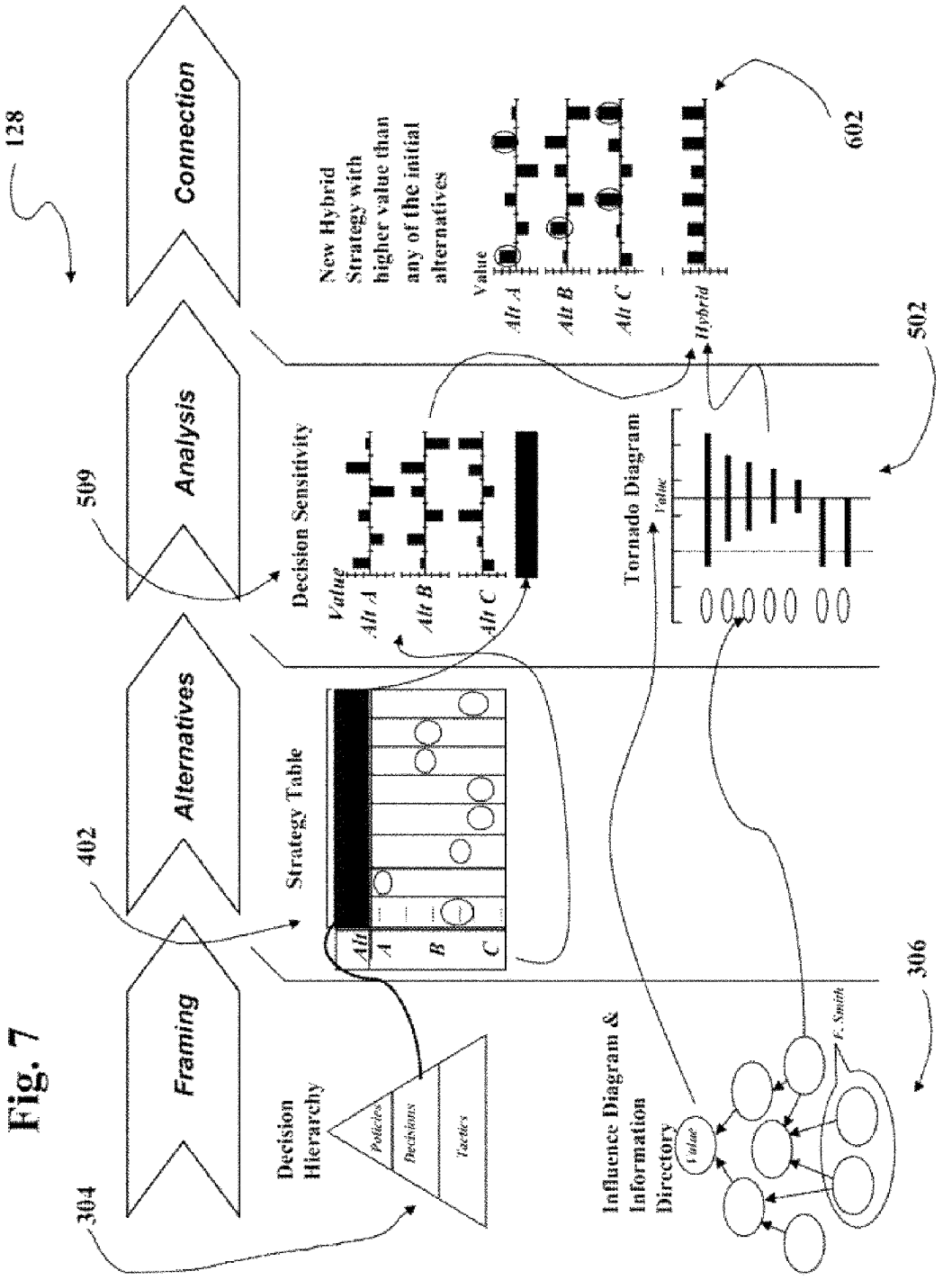

128
Framing
Alternatives
Analysis
Connection
304
402
509
602
502
306
Decision Hierarchy
Policies
Decisions
Tactics
Strategy Table
Alt
A
B
C
Decision Sensitivity
Value
Alt A
Alt B
Alt C
New Hybrid Strategy with higher value than any of the initial alternatives
Value
Alt A
Alt B
Alt C
Hybrid
Tornado Diagram
Value
Influence Diagram & Information Directory
Value
F. Smith

Fig. 7

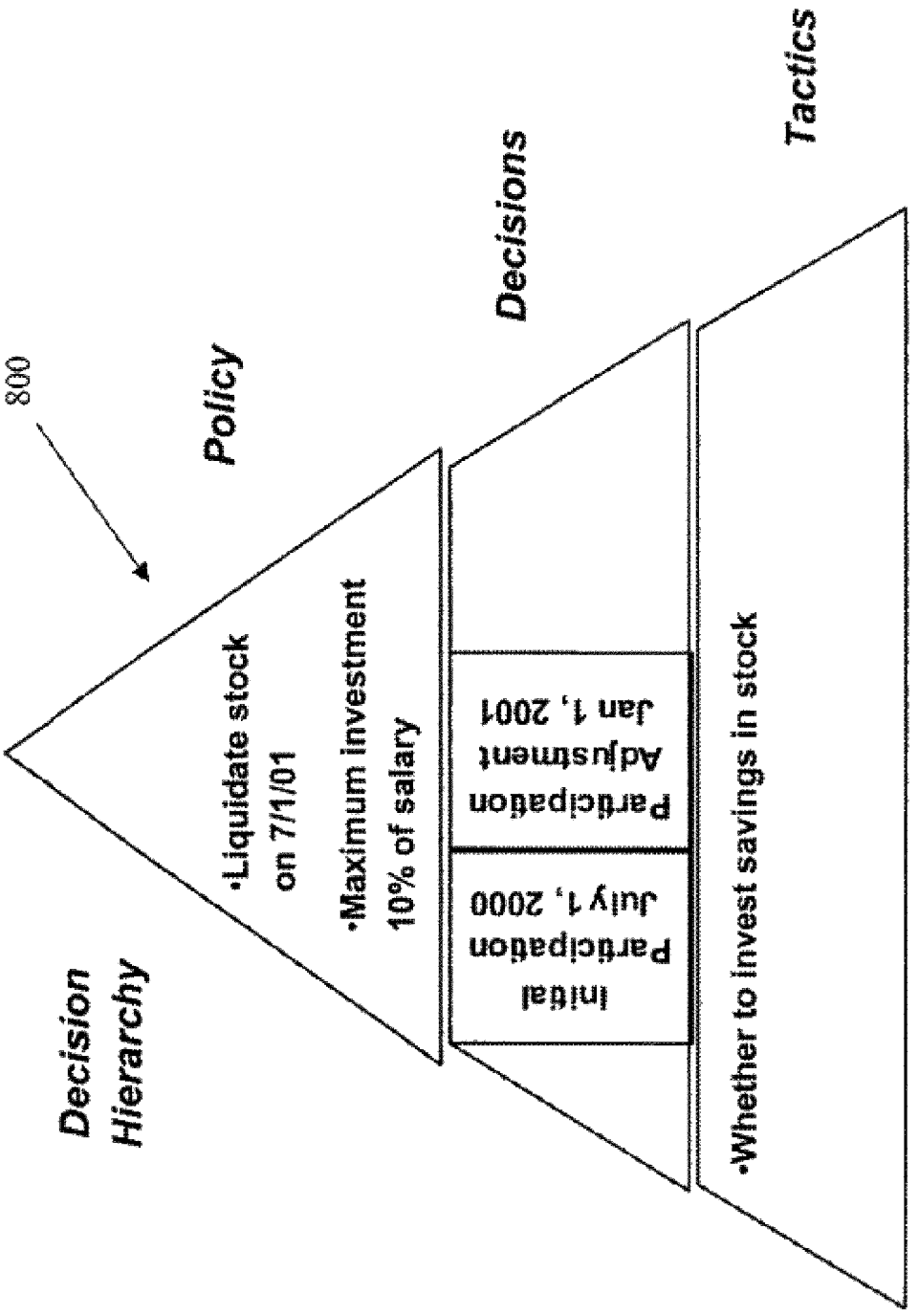

800
Decision Hierarchy
Policy
Decisions
Tactics
•Liquidate stock on 7/1/01
•Maximum investment 10% of salary
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
•Whether to invest savings in stock

Fig. 8a

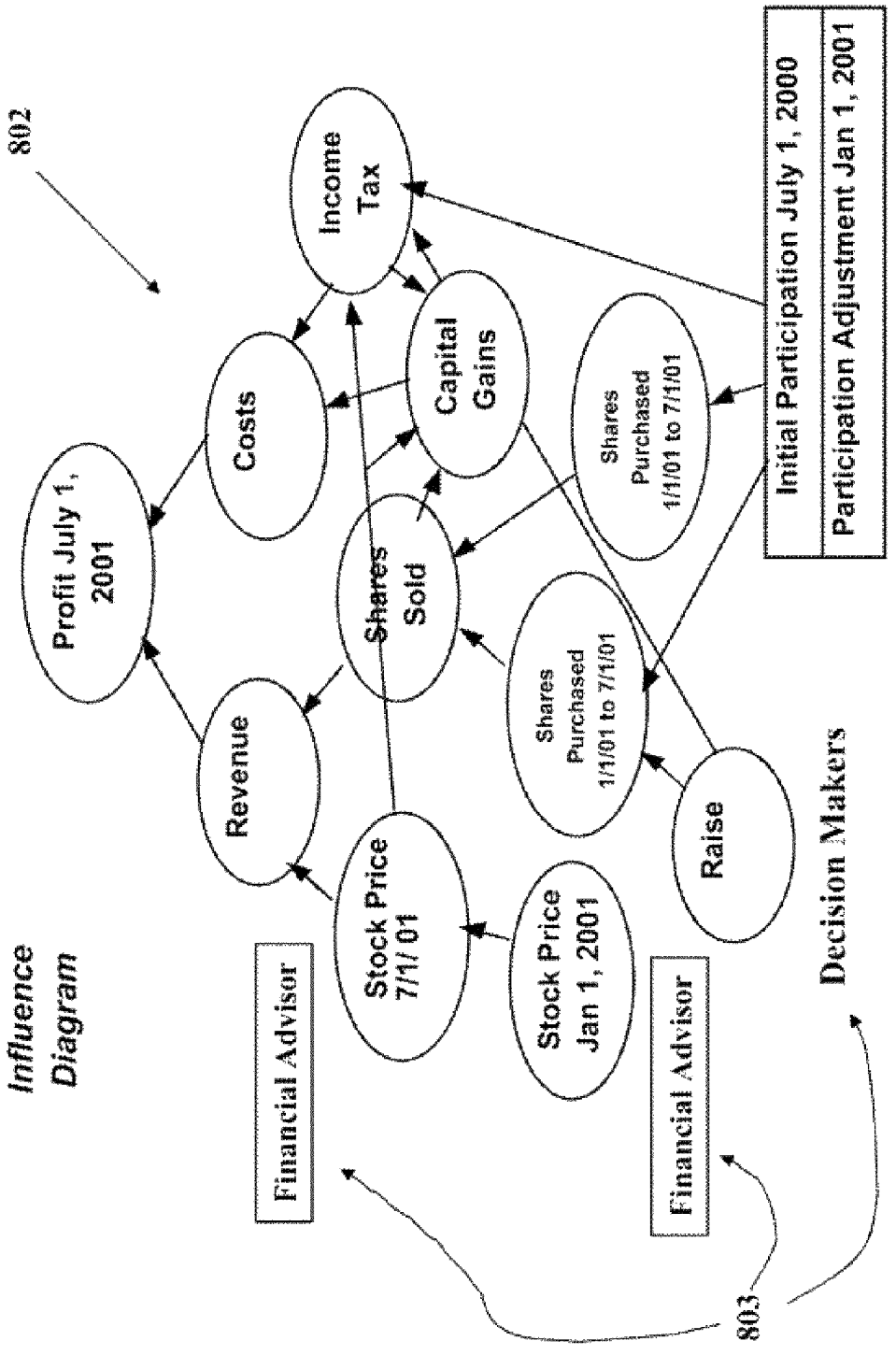

802
Influence Diagram
Profit July 1, 2001
Costs
Income Tax
Capital Gains
Shares Sold
Revenue
Stock Price 7/1/ 01
Stock Price Jan 1, 2001
Shares Purchased 1/1/01 to 7/1/01
Shares Purchased 1/1/01 to 7/1/01
Raise
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
Financial Advisor
Financial Advisor
Decision Makers
803

Fig. 8b

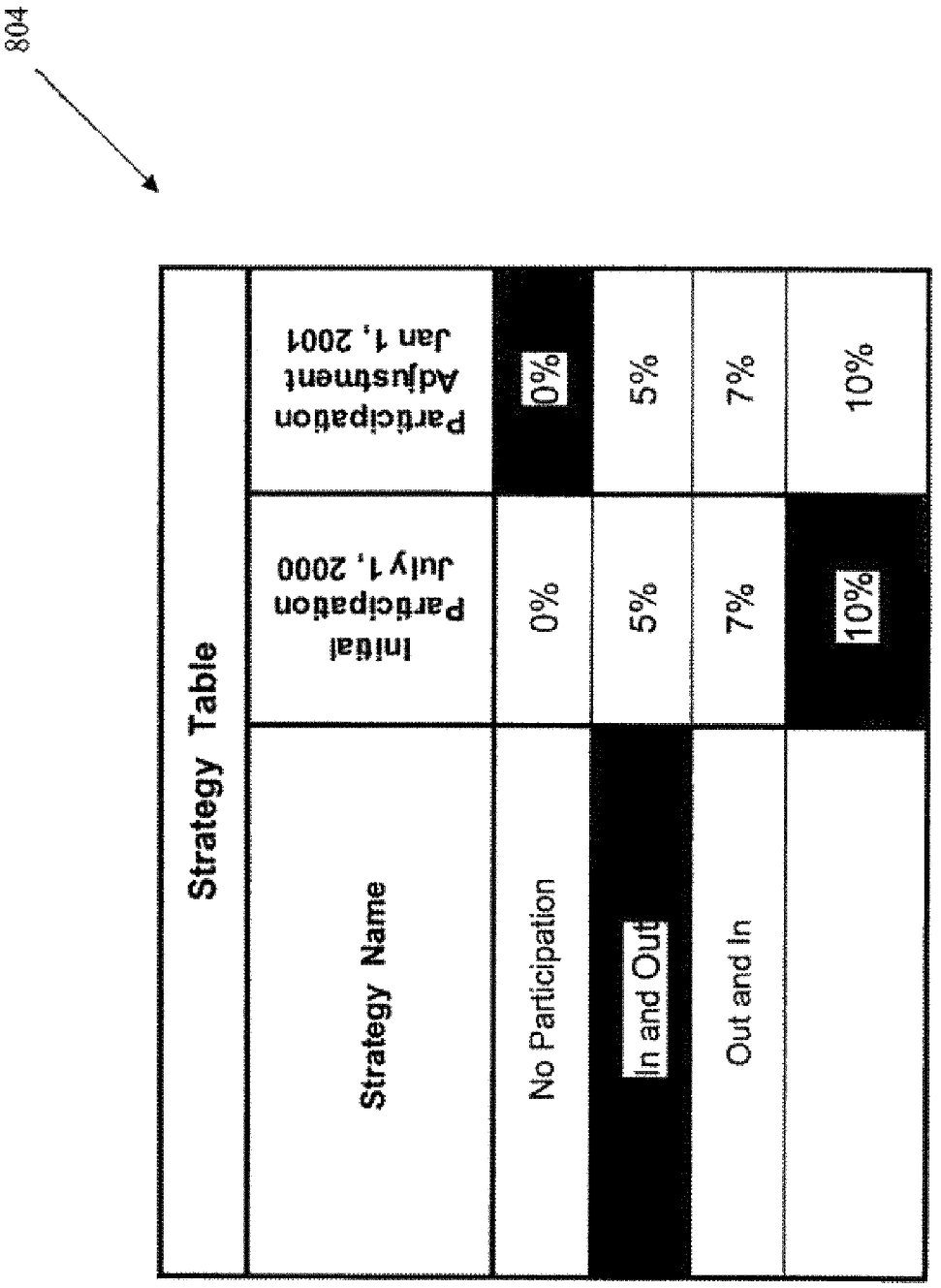

804
Strategy Table
Strategy Name
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
No Participation
0%
0%
In and Out
5%
5%
Out and In
7%
7%
10%
10%

Fig. 8c

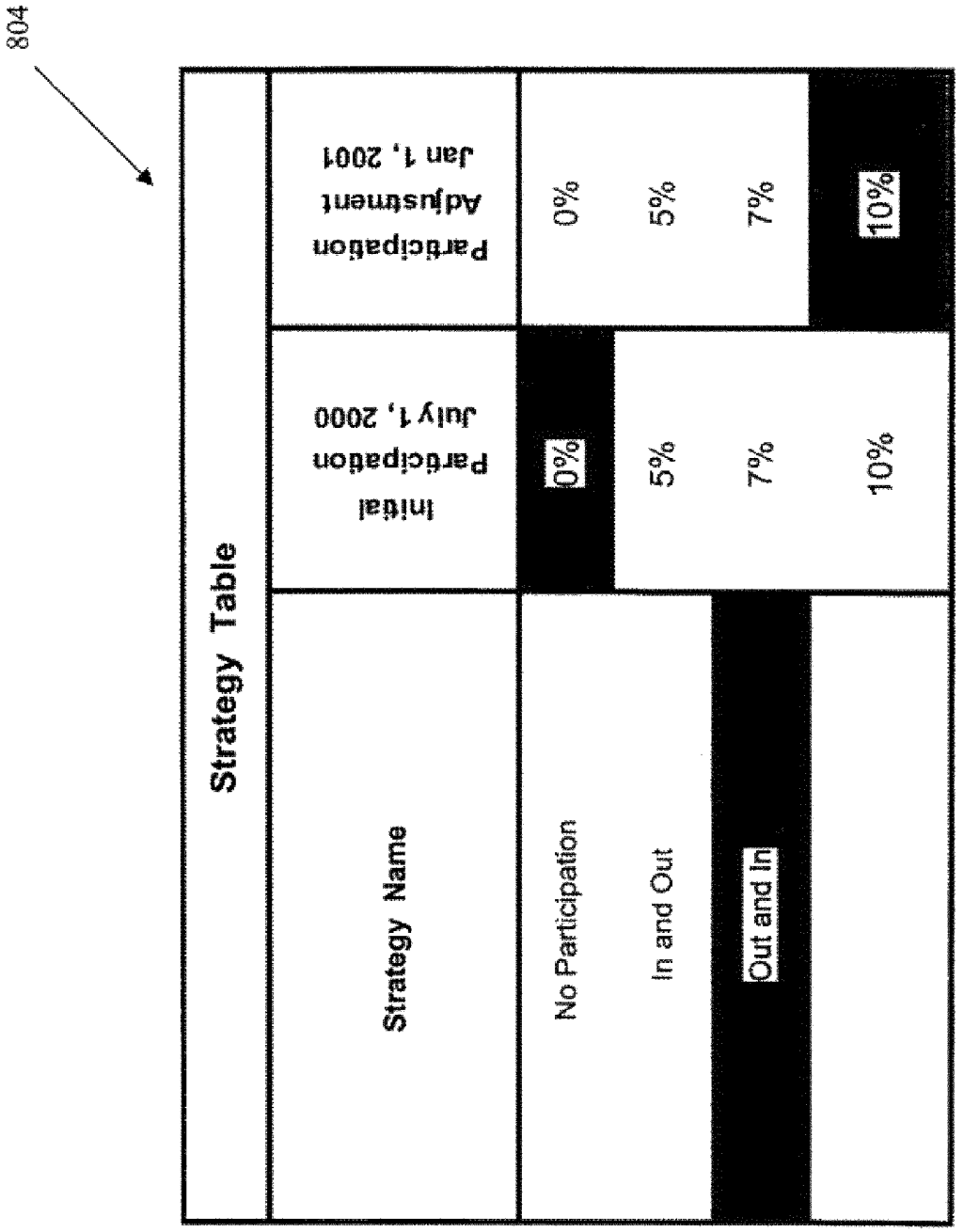

804
Strategy Table
Strategy Name
No Participation
In and Out
Out and In
Initial Participation July 1, 2000
0%
5%
7%
10%
Participation Adjustment Jan 1, 2001
0%
5%
7%
10%

Fig. 8d

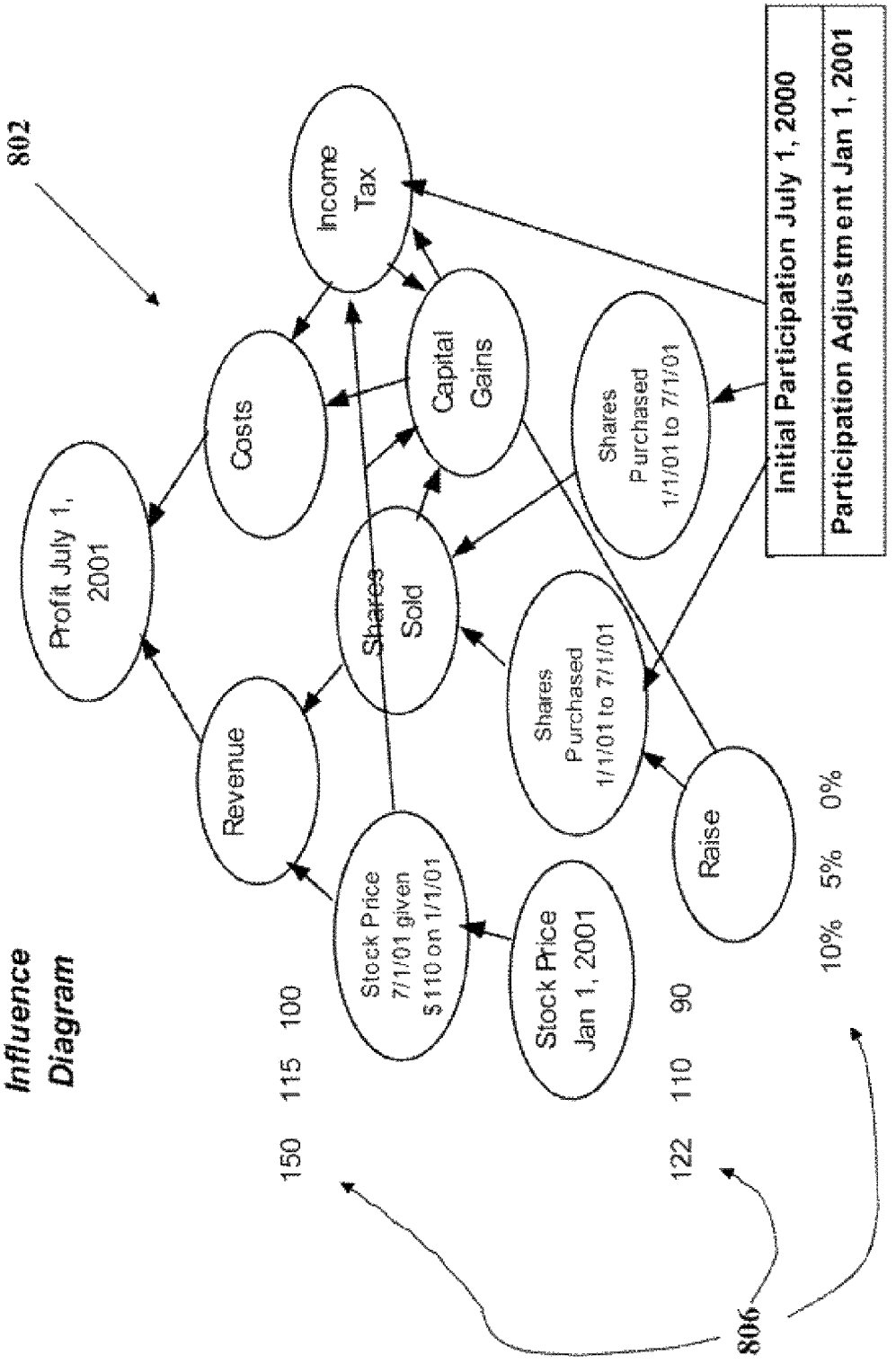

802
Influence Diagram
Profit July 1, 2001
Costs
Income Tax
Capital Gains
Shares Purchased 1/1/01 to 7/1/01
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
Shares Sold
Revenue
Shares Purchased 1/1/01 to 7/1/01
Stock Price 7/1/01 given $110 on 1/1/01
Stock Price Jan 1, 2001
Raise
150 115 100
122 110 90
10% 5% 0%
806

Fig. 8e

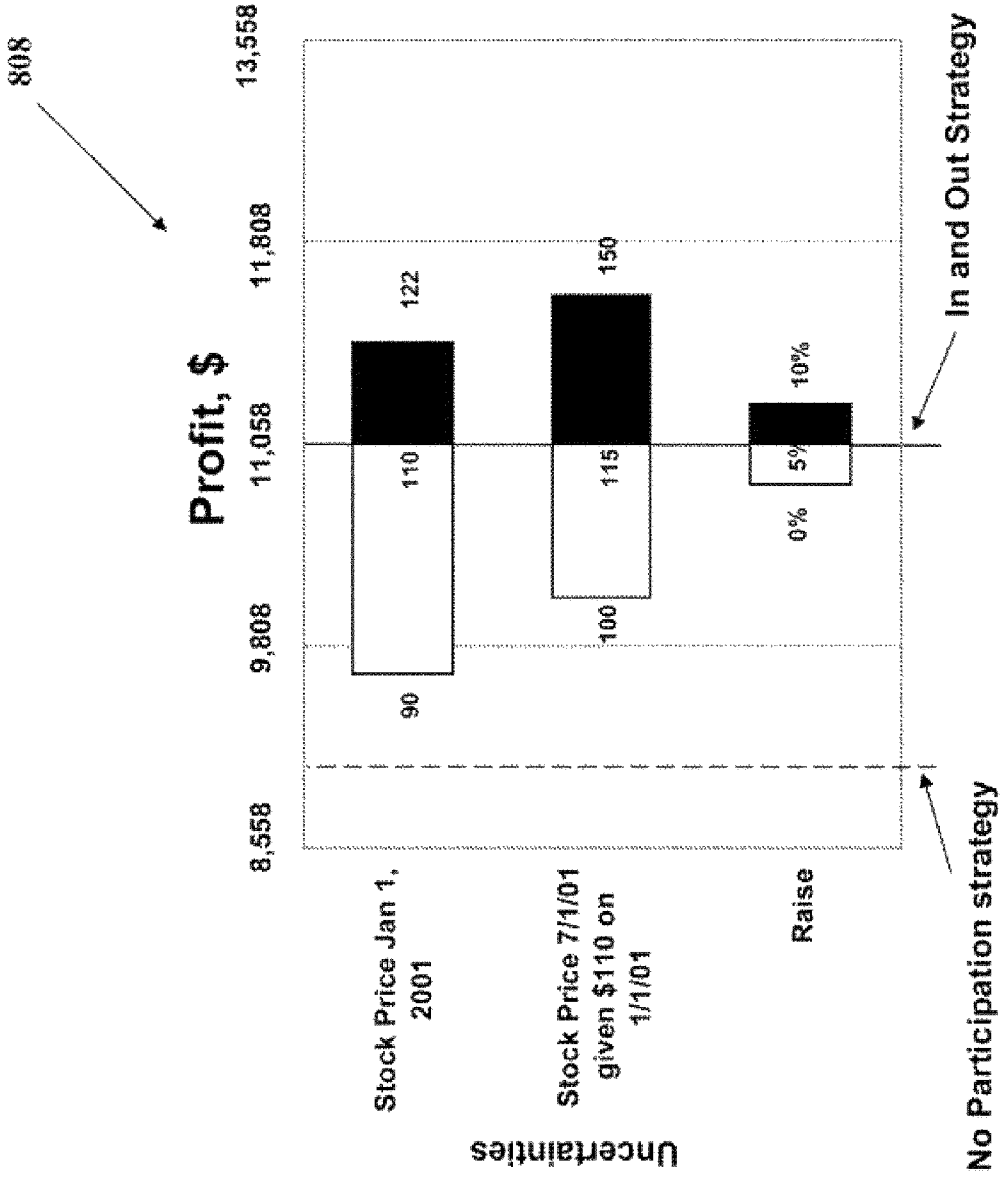

808
Profit, $
13,558
11,808
11,058
9,808
8,558
122
110
90
150
115
100
10%
5%
0%
In and Out Strategy
No Participation strategy
Uncertainties
Stock Price Jan 1, 2001
Stock Price 7/1/01 given $110 on 1/1/01
Raise

Fig. 8f

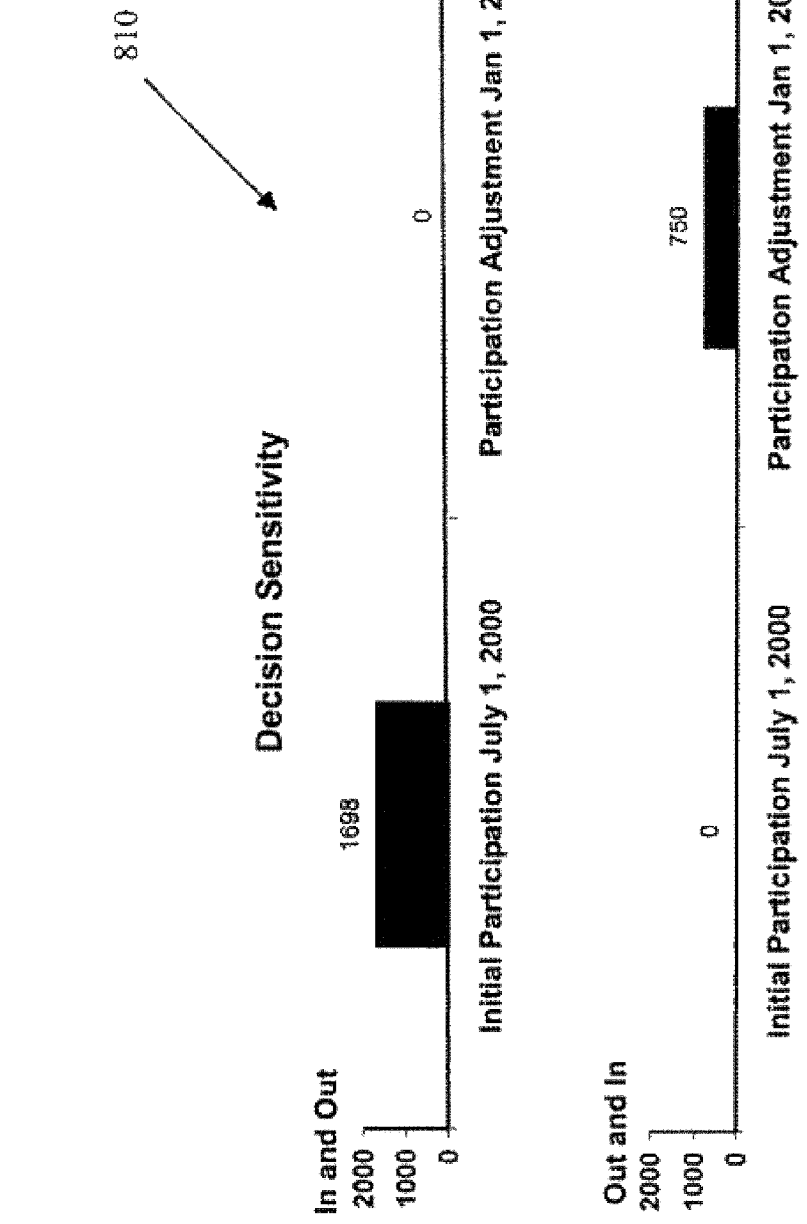

810
Decision Sensitivity
In and Out
2000
1000
0
1698
0
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
Out and In
2000
1000
0
0
750
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001

Fig. 8g

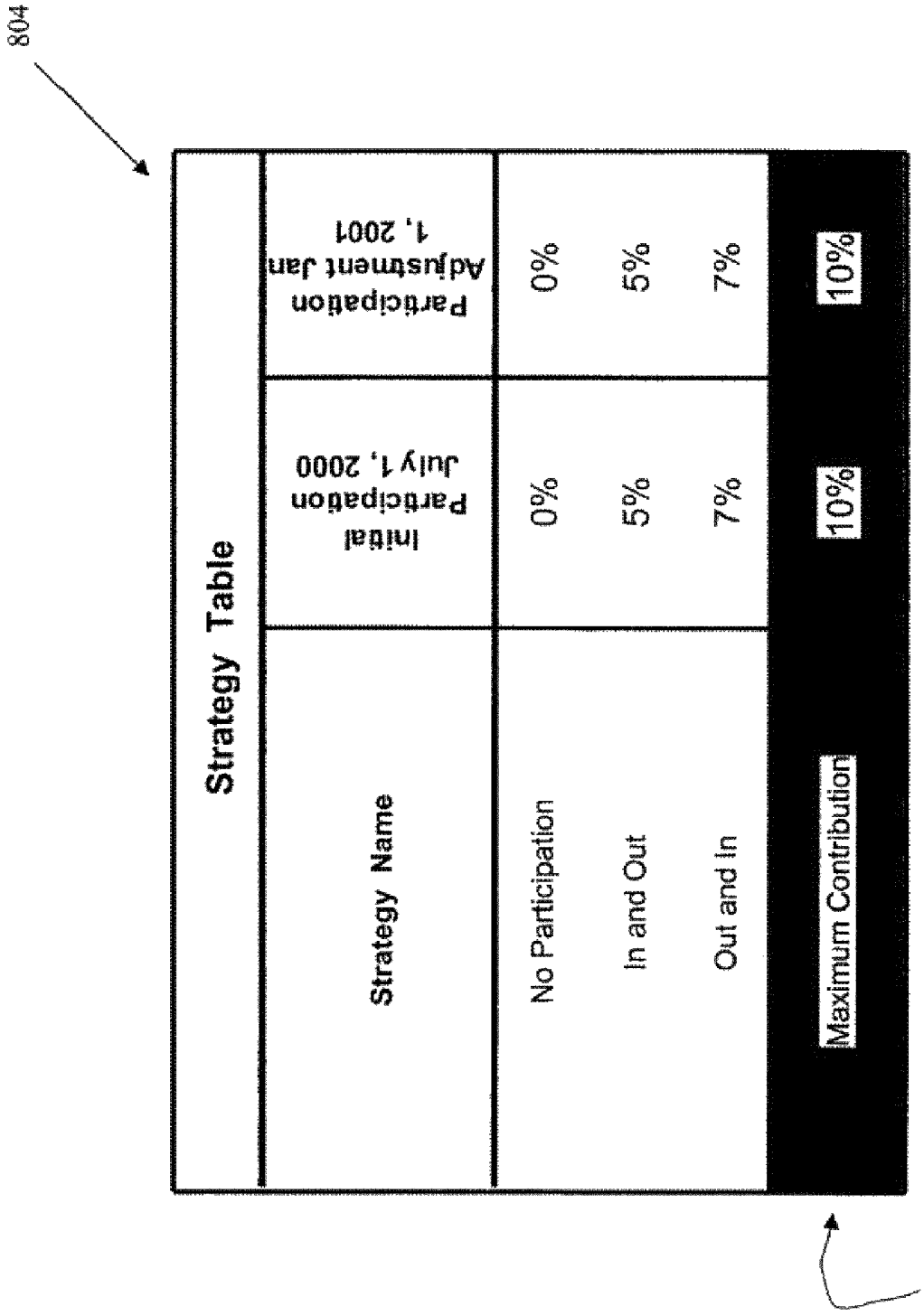

804
Strategy Table
Strategy Name
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
No Participation
In and Out
Out and In
0%
5%
7%
0%
5%
7%
Maximum Contribution
10%
10%
811

Fig. 8h

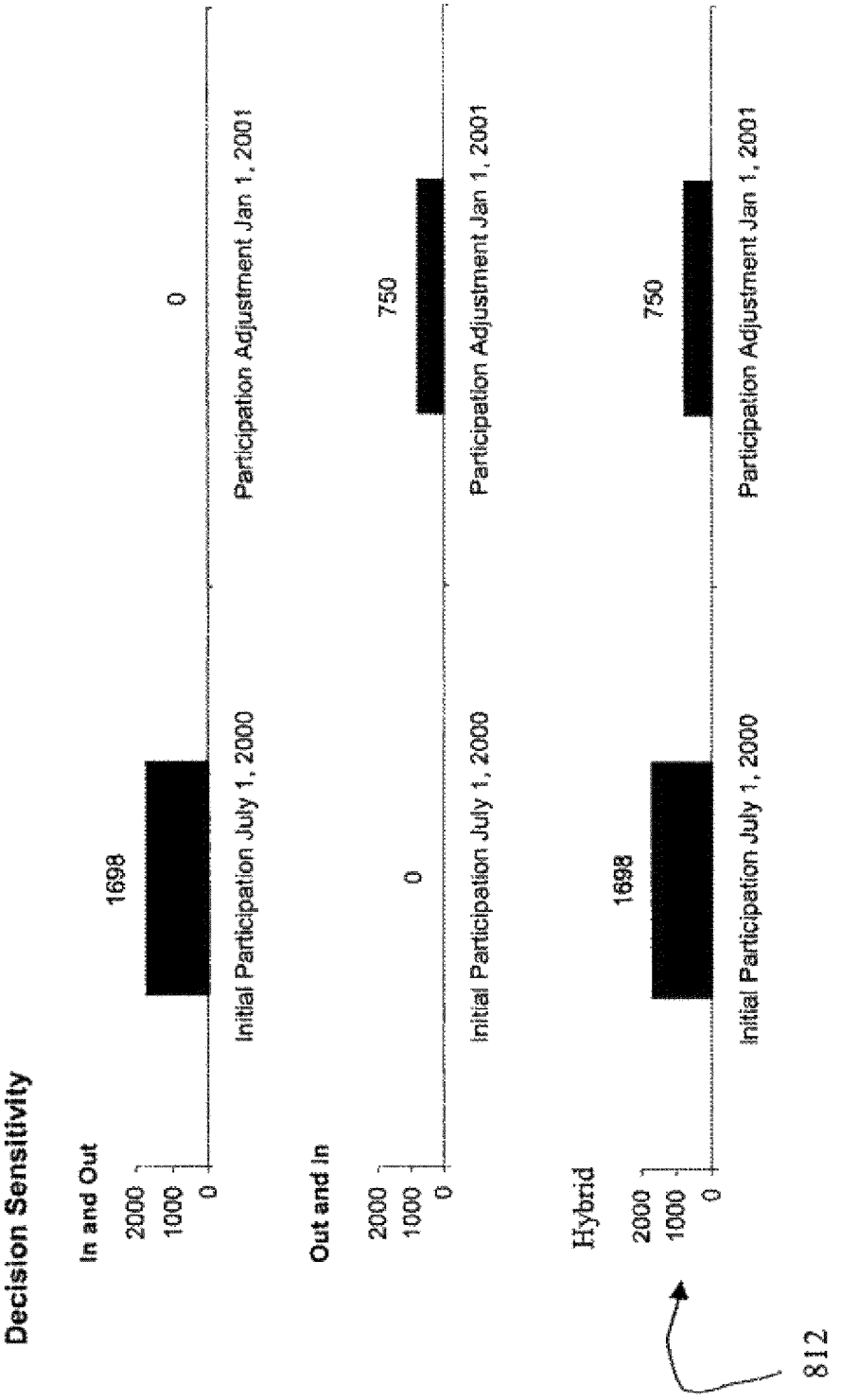

Decision Sensitivity
In and Out
2000
1000
0
1698
0
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
Out and In
2000
1000
0
0
750
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
Hybrid
2000
1000
0
1698
750
Initial Participation July 1, 2000
Participation Adjustment Jan 1, 2001
812

Fig. 8i

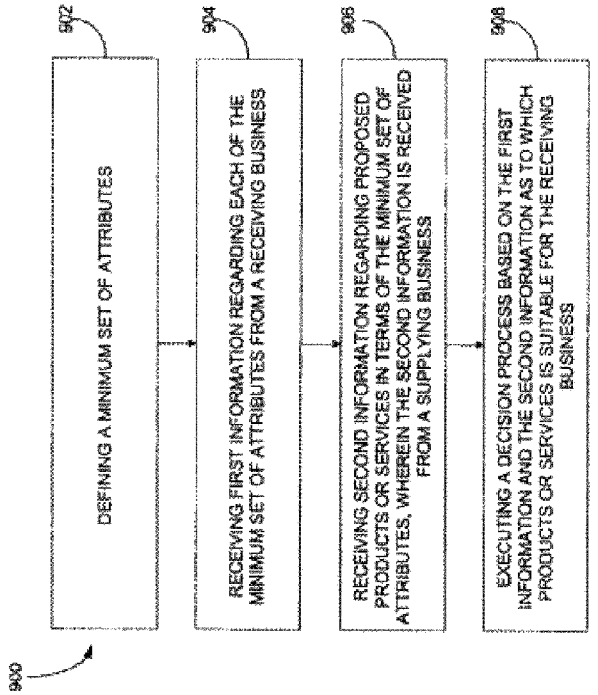

900
902
DEFINING A MINIMUM SET OF ATTRIBUTES
904
RECEIVING FIRST INFORMATION REGARDING EACH OF THE MINIMUM SET OF ATTRIBUTES FROM A RECEIVING BUSINESS
906
RECEIVING SECOND INFORMATION REGARDING PROPOSED PRODUCTS OR SERVICES IN TERMS OF THE MINIMUM SET OF ATTRIBUTES, WHEREIN THE SECOND INFORMATION IS RECEIVED FROM A SUPPLYING BUSINESS
908
EXECUTING A DECISION PROCESS BASED ON THE FIRST INFORMATION AND THE SECOND INFORMATION AS TO WHICH PRODUCTS OR SERVICES IS SUITABLE FOR THE RECEIVING BUSINESS

Fig. 9

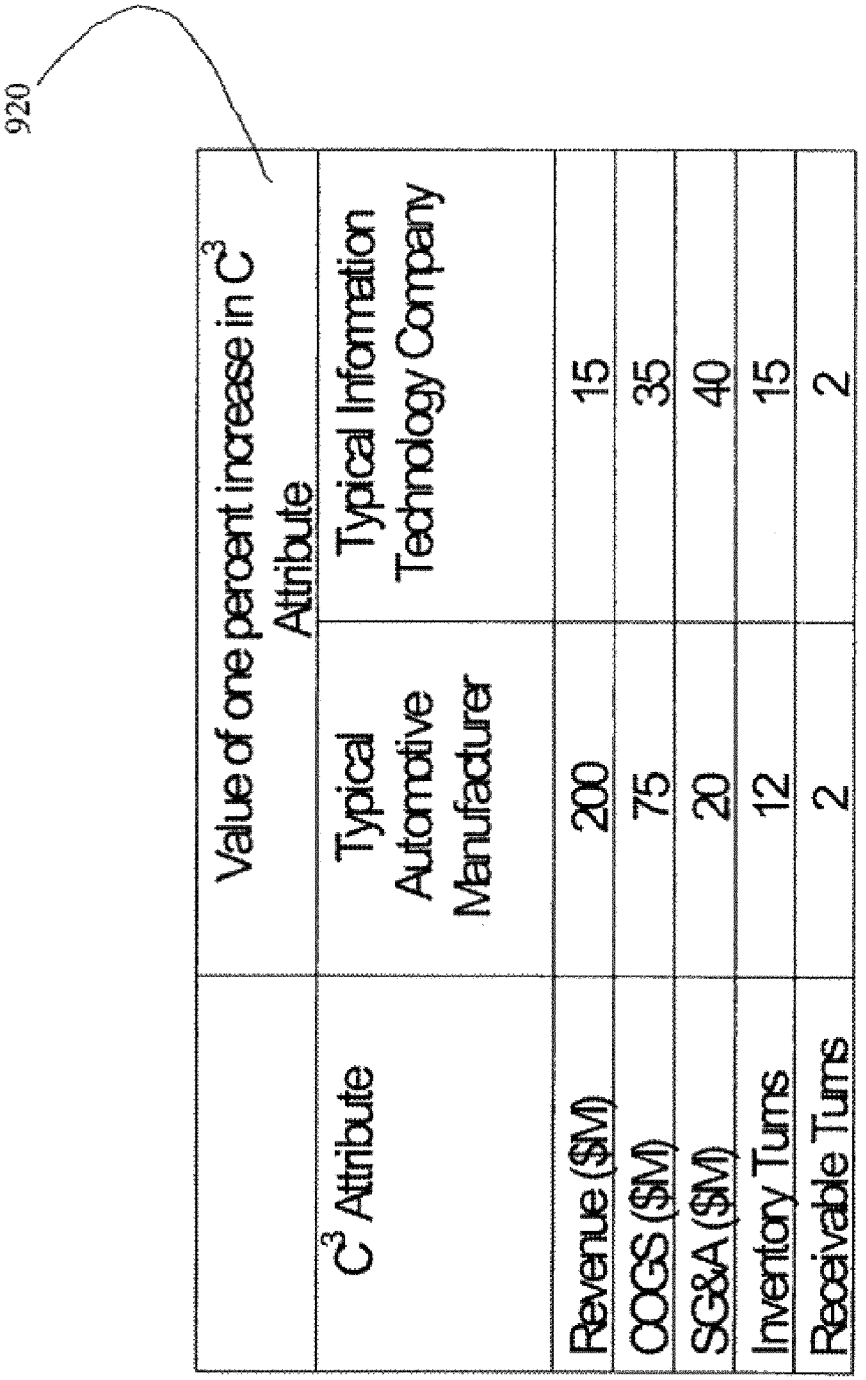
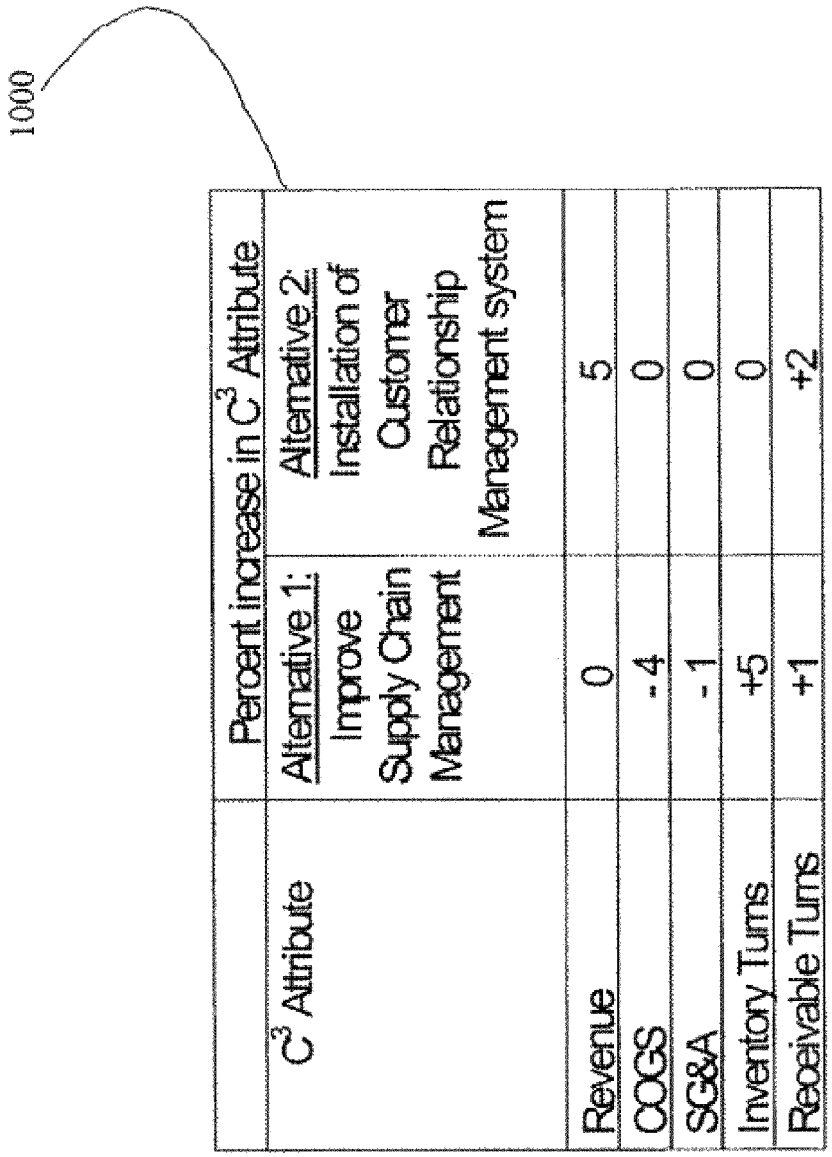

920
Value of one percent increase in C3 Attribute
C3 Attribute
Typical Automotive Manufacturer
Typical Information Technology Company
Revenue ($M) 200 15
COGS ($M) 75 35
SG&A ($M) 20 40
Inventory Turns 12 15
Receivable Turns 2 2

Fig. 9a



	Percent increase in C^3 Attribute	
C^3 Attribute	Alternative 1: Improve Supply Chain Management	Alternative 2: Installation of Customer Relationship Management system
Revenue	0	5
COGS	-4	0
SG&A	-1	0
Inventory Turns	+5	0
Receivable Turns	+1	+2

Fig. 10

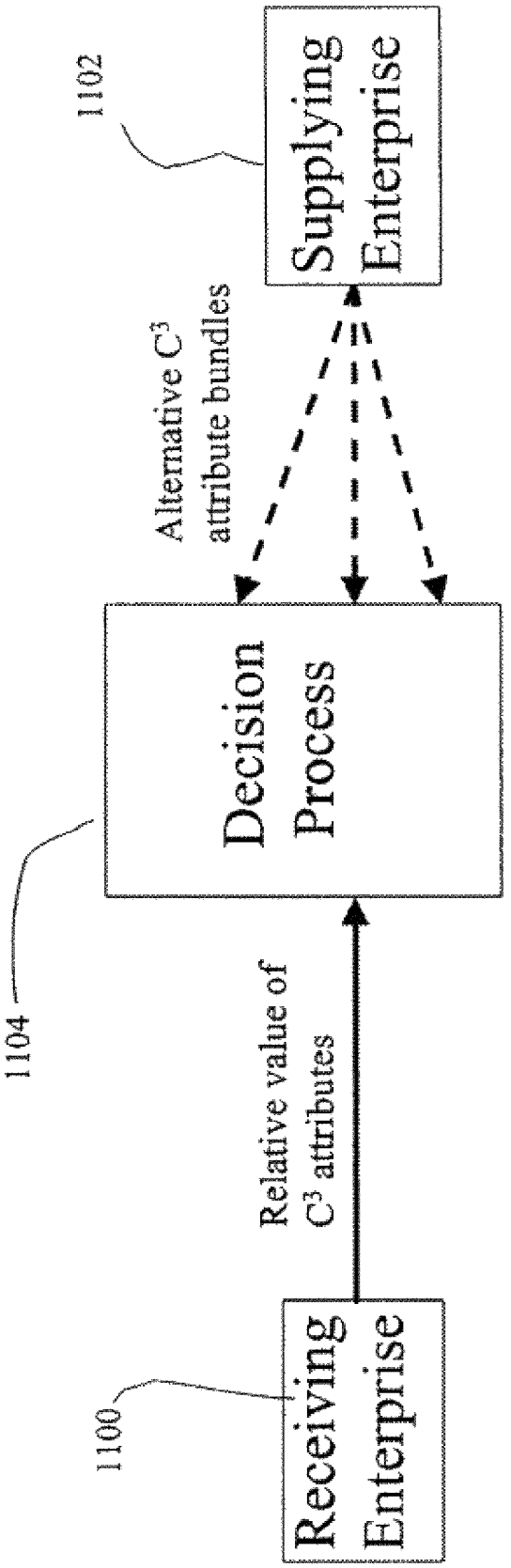

1102
Supplying Enterprise
Alternative C3 attribute bundles
Decision Process
1104
Relative value of C3 attributes
1100
Receiving Enterprise

Fig. 11

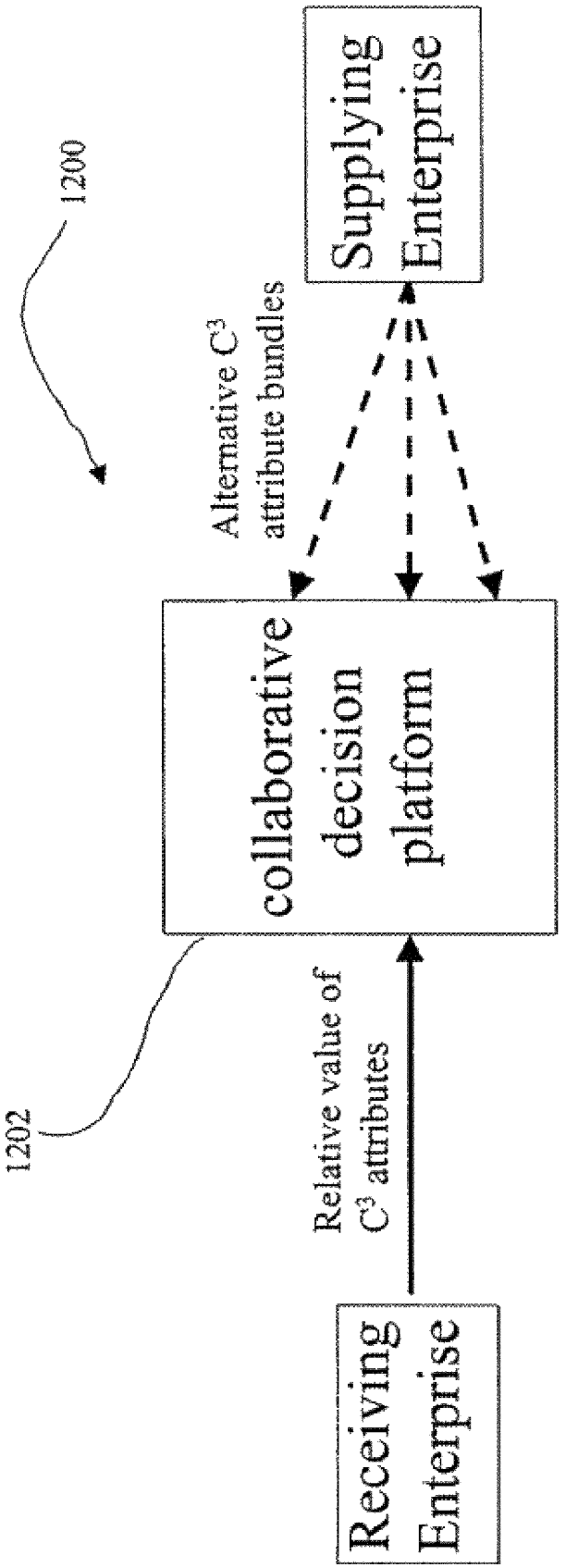

1200
Supplying Enterprise
Alternative C^3 attribute bundles
collaborative decision platform
1202
Relative value of C^3 attributes
Receiving Enterprise

Fig. 12

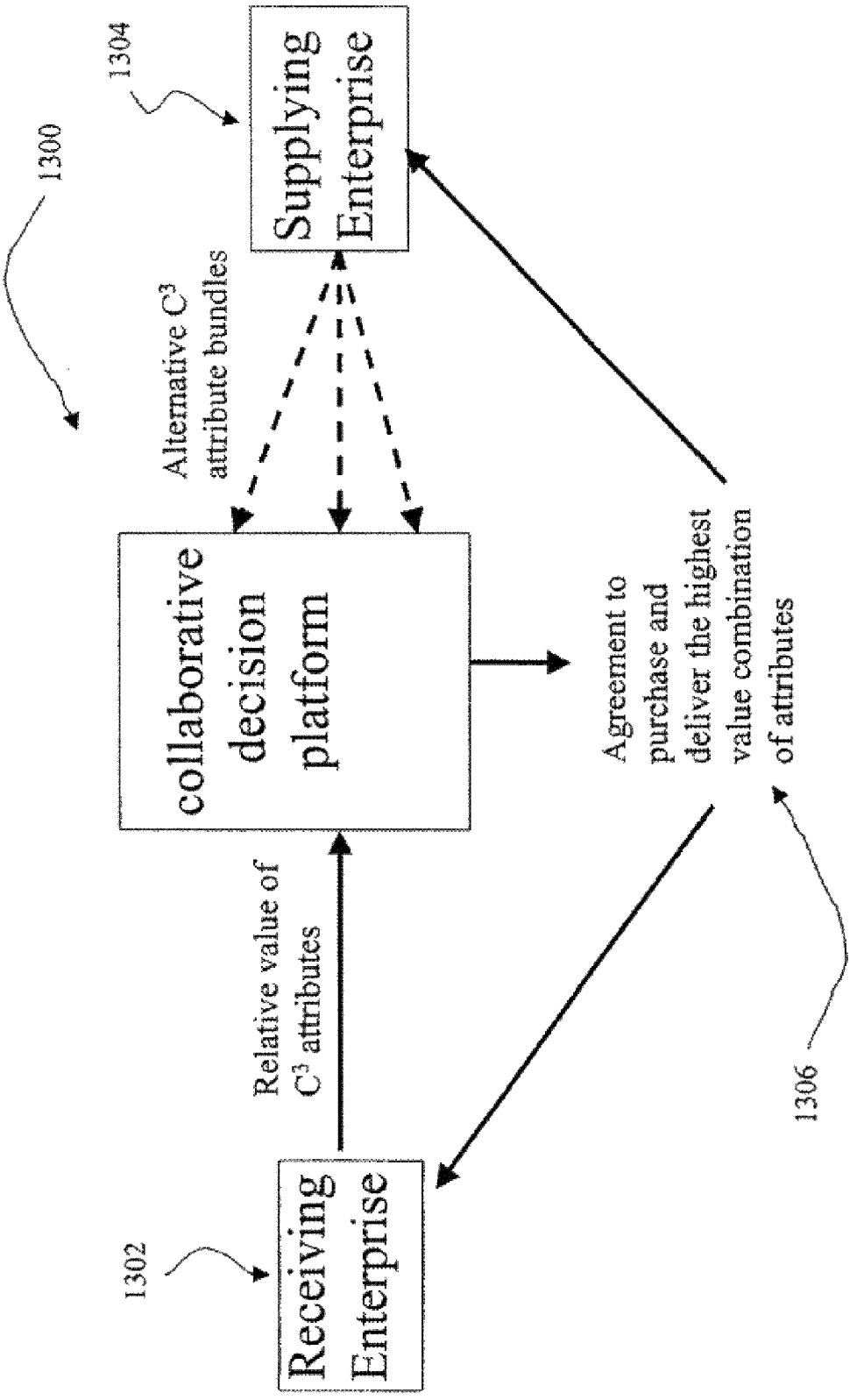

1300
1304
Supplying Enterprise
Alternative C3 attribute bundles
collaborative decision platform
Agreement to purchase and deliver the highest value combination of attributes
1306
Relative value of C3 attributes
1302
Receiving Enterprise

Fig. 13

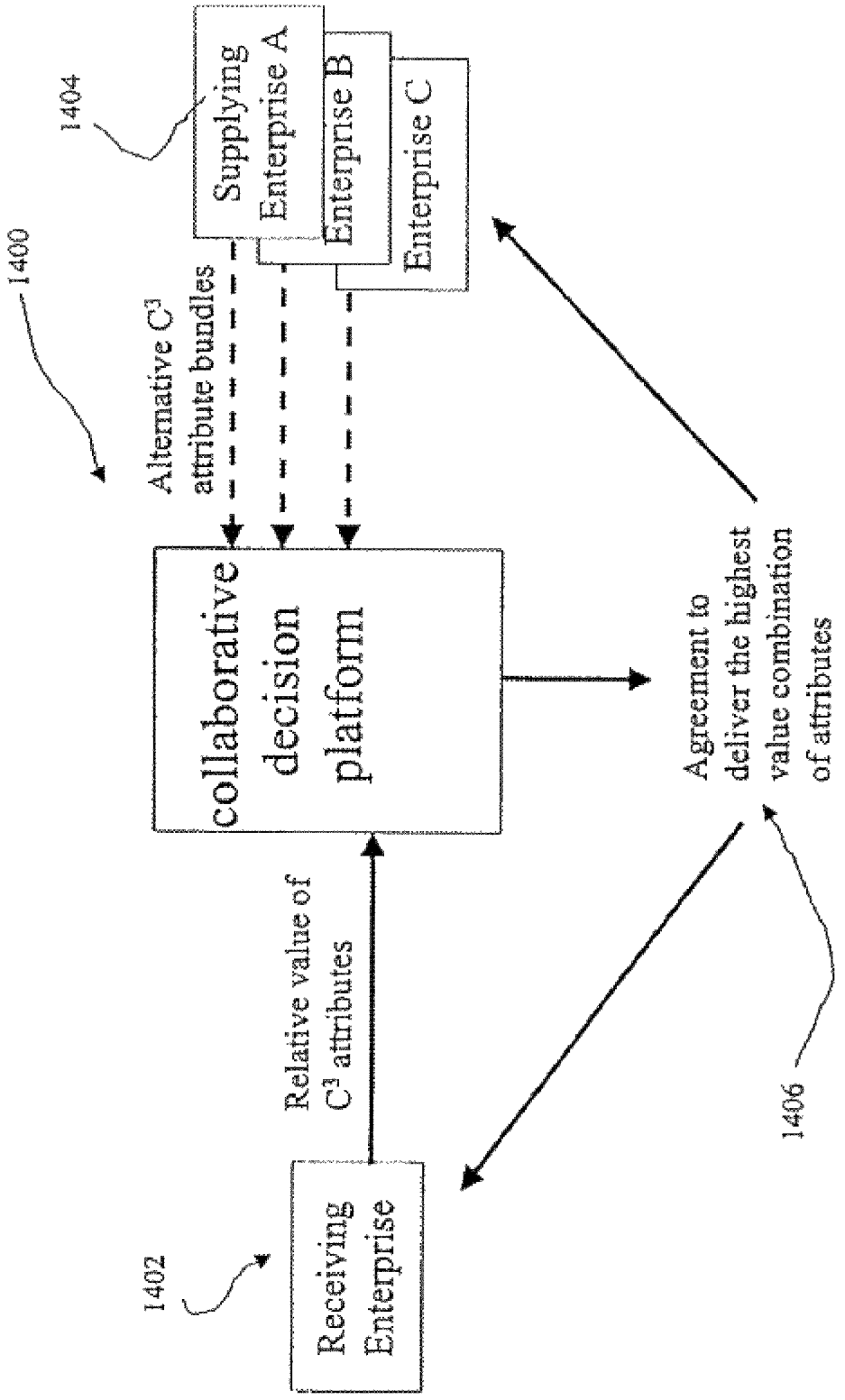

1400
1404
Supplying Enterprise A
Enterprise B
Enterprise C
Alternative C³ attribute bundles
collaborative decision platform
Agreement to deliver the highest value combination of attributes
Relative value of C³ attributes
1402
Receiving Enterprise
1406

Fig. 14

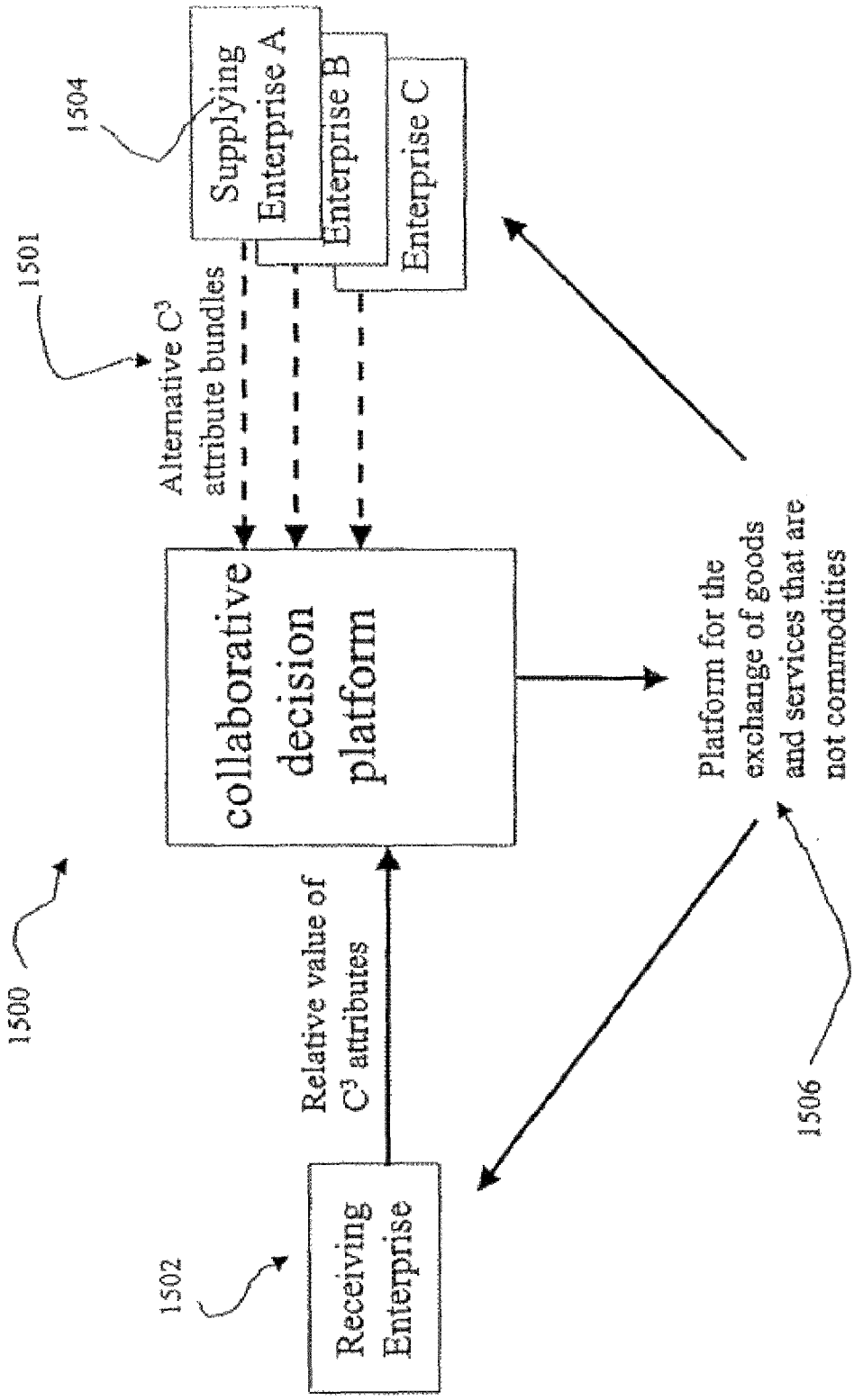

1500
1501
1502
1504
1506
Supplying Enterprise A
Enterprise B
Enterprise C
Alternative C³ attribute bundles
collaborative decision platform
Relative value of C³ attributes
Receiving Enterprise
Platform for the exchange of goods and services that are not commodities

Fig. 15

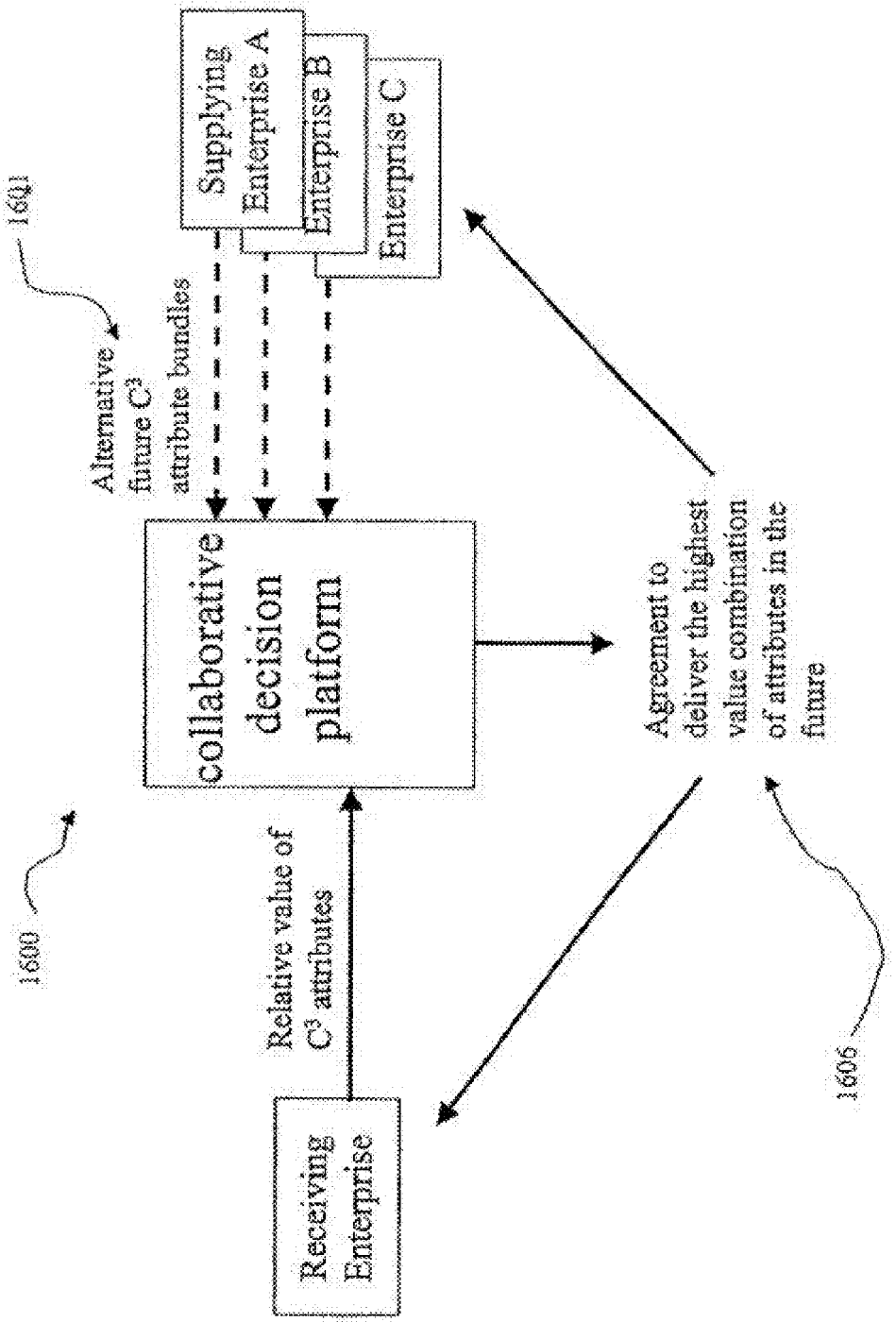

1600
1601
Alternative future C3 attribute bundles
Supplying Enterprise A
Enterprise B
Enterprise C
collaborative decision platform
Relative value of C3 attributes
Receiving Enterprise
Agreement to deliver the highest value combination of attributes in the future
1606

Fig. 16

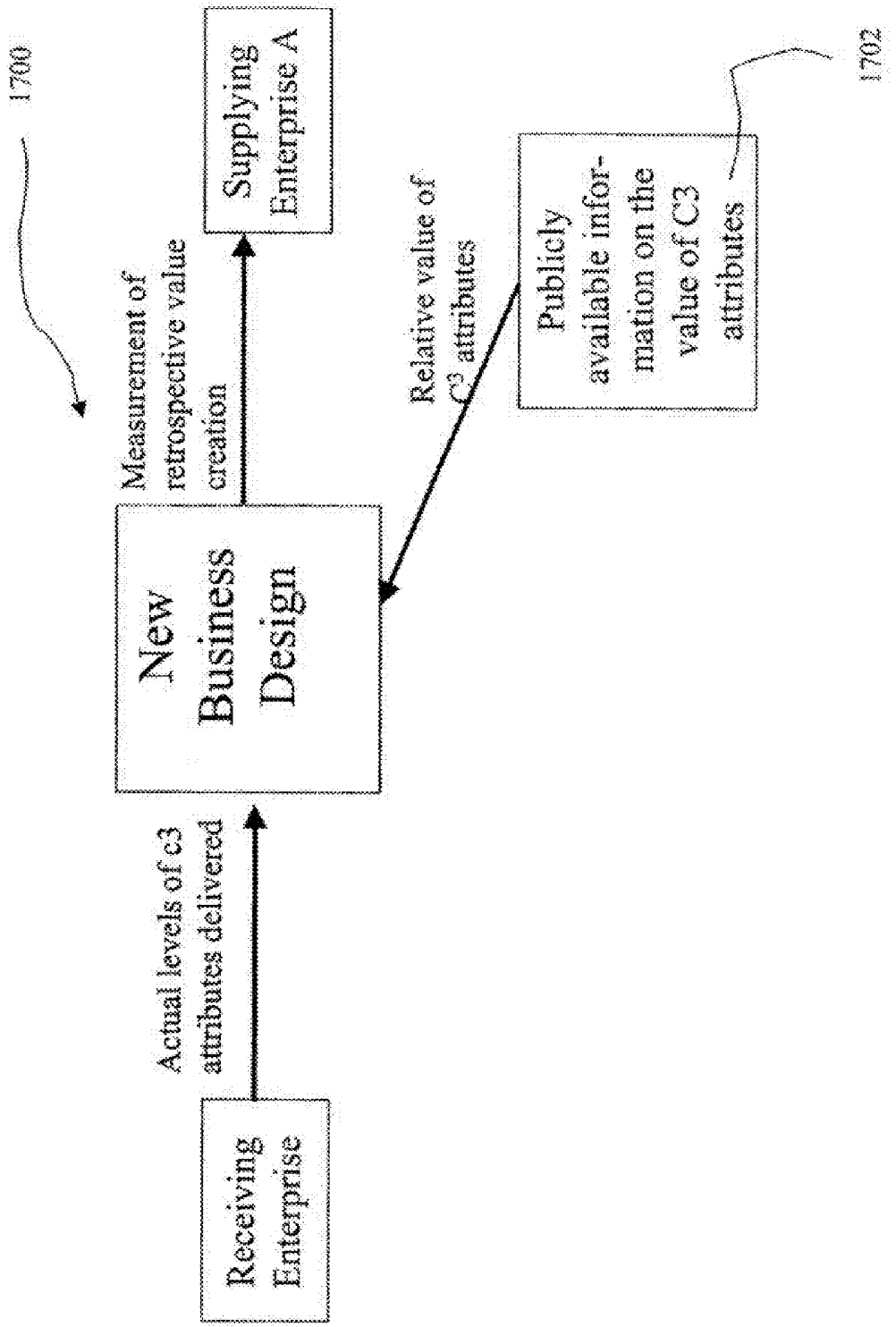

1700
Supplying Enterprise A
Measurement of retrospective value creation
Relative value of C3 attributes
Publicly available information on the value of C3 attributes
1702
New Business Design
Actual levels of c3 attributes delivered
Receiving Enterprise

Fig. 17

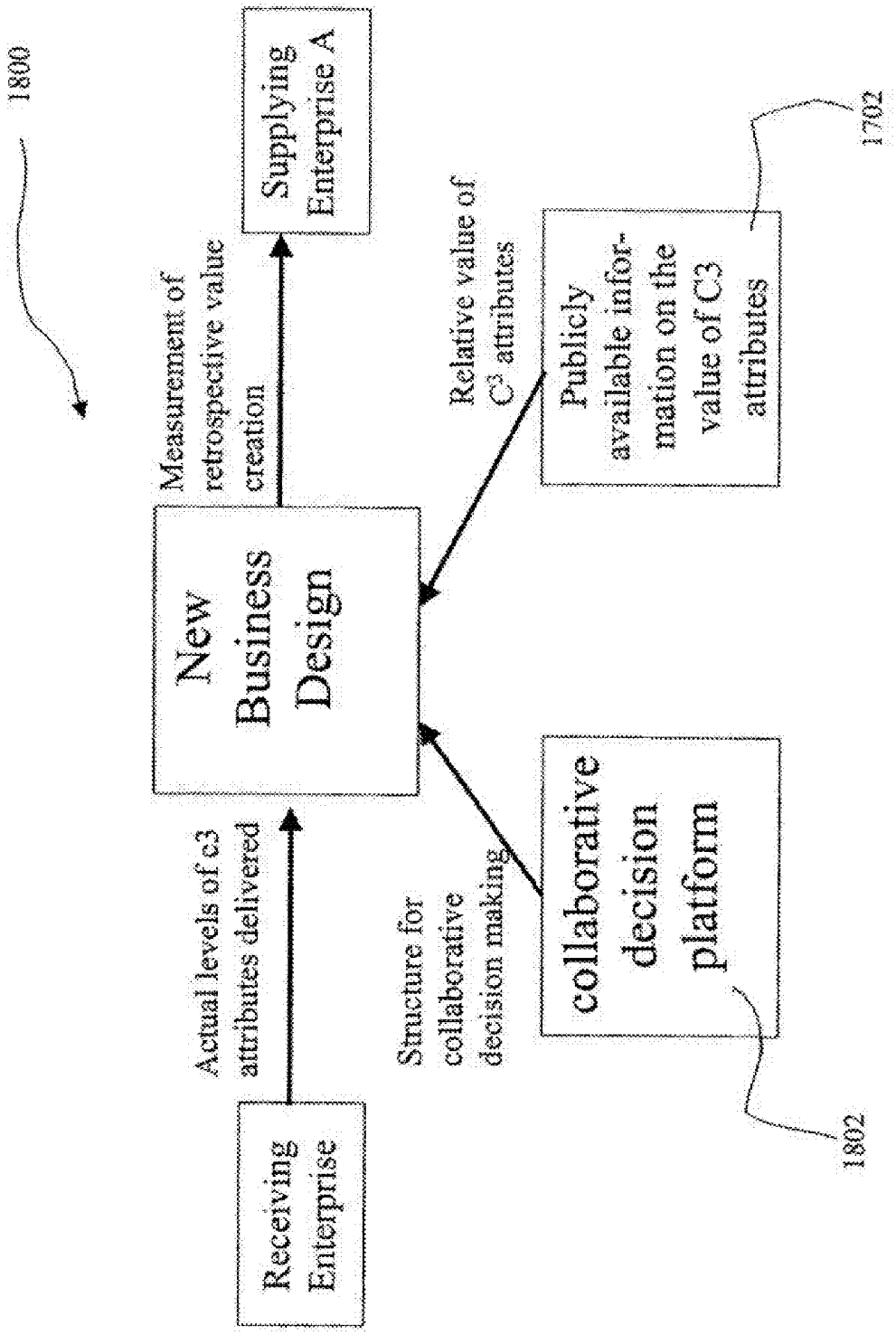

1800
Supplying Enterprise A
Measurement of retrospective value creation
Relative value of C3 attributes
Publicly available information on the value of C3 attributes
1702
New Business Design
Actual levels of c3 attributes delivered
Structure for collaborative decision making
collaborative decision platform
1802
Receiving Enterprise

Fig. 18

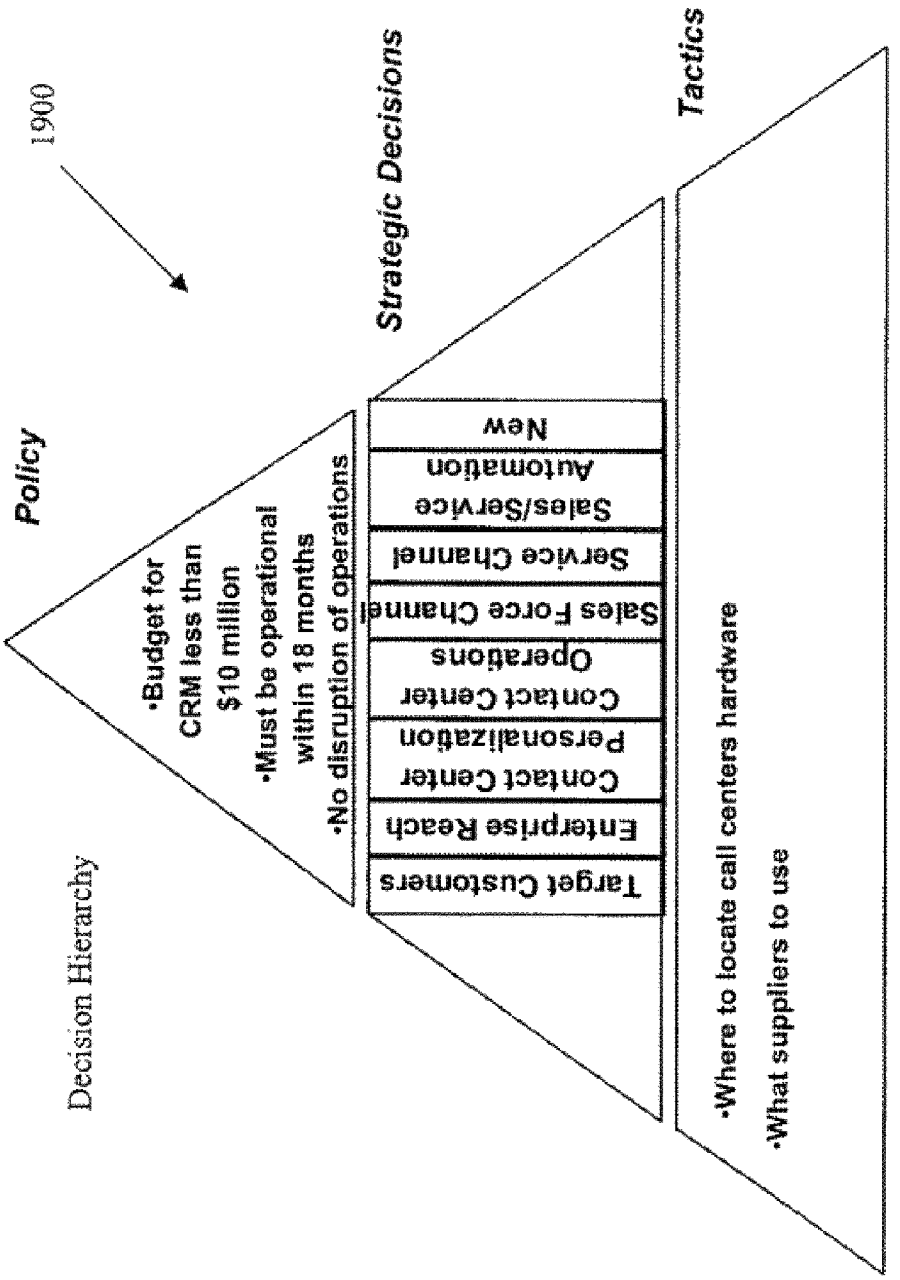

1900
Decision Hierarchy
Policy
•Budget for CRM less than $10 million
•Must be operational within 18 months
•No disruption of operations
Strategic Decisions
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
New
Tactics
•Where to locate call centers hardware
•What suppliers to use

Fig. 19

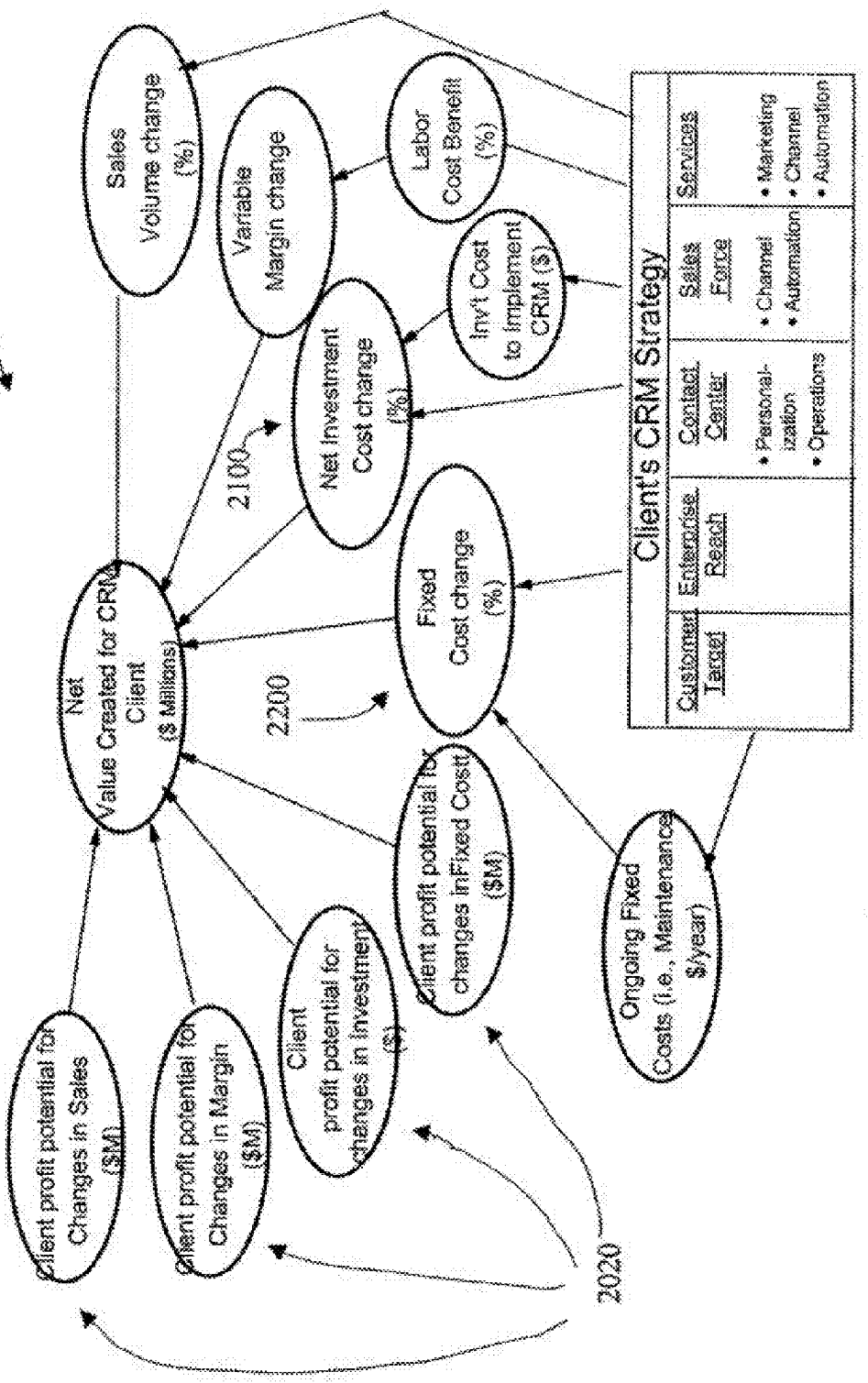

2000
Sales Volume change (%)
Variable Margin change
Labor Cost Benefit (%)
Invt Cost to implement CRM ($)
Net Investment Cost change (%)
2100
Net Value Created for CRM Client ($ Millions)
2200
Fixed Cost change (%)
Client's CRM Strategy
Customer Target
Enterprise Reach
Contact Center
• Personalization
• Operations
Sales Force
• Channel
• Automation
Services
• Marketing
• Channel
• Automation
Client profit potential for Changes in Sales ($M)
Client profit potential for Changes in Margin ($M)
Client profit potential for changes in Investment ($)
Client profit potential for changes inFixed Cost ($M)
Ongoing Fixed Costs (i.e., Maintenance $/year)
2020

Fig. 20

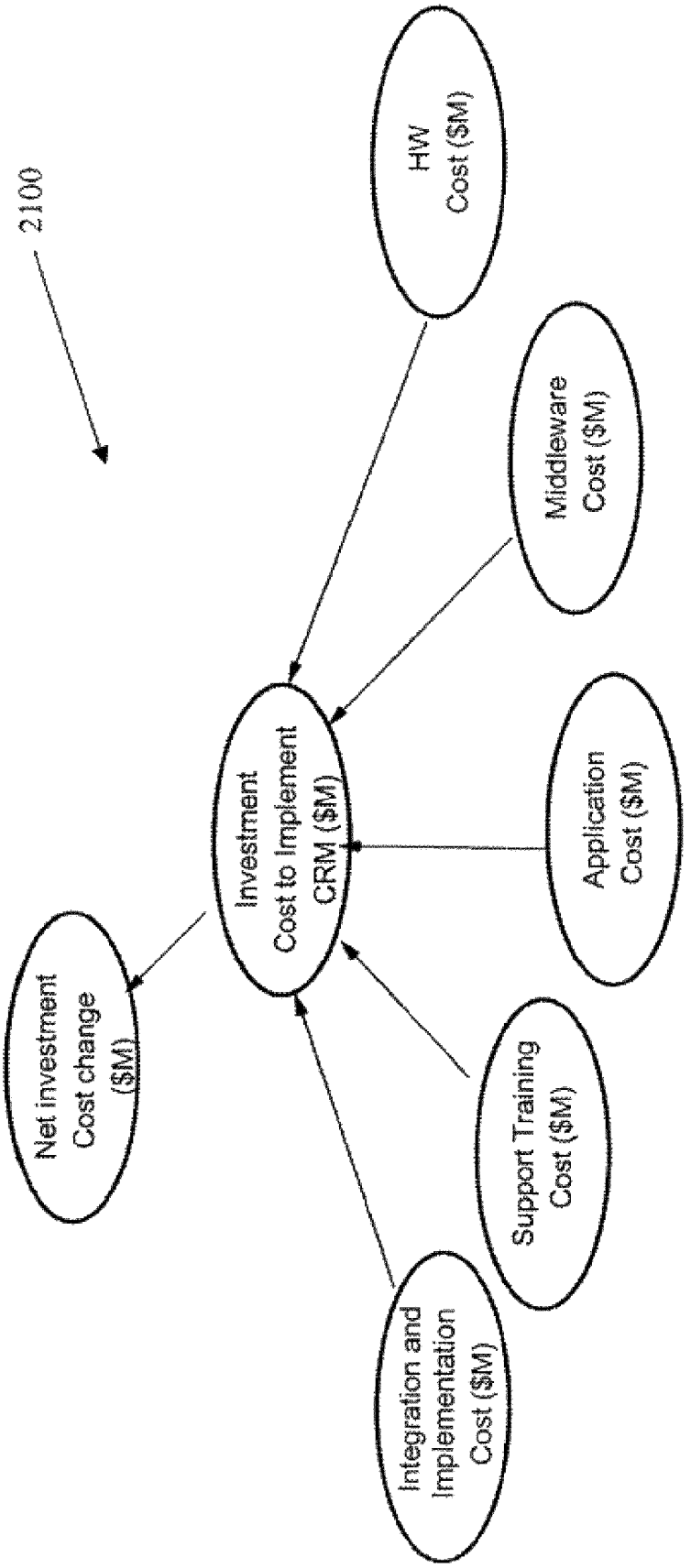

2100
HW Cost ($M)
Middleware Cost ($M)
Application Cost ($M)
Support Training Cost ($M)
Integration and Implementation Cost ($M)
Investment Cost to Implement CRM ($M)
Net investment Cost change ($M)

Fig. 21

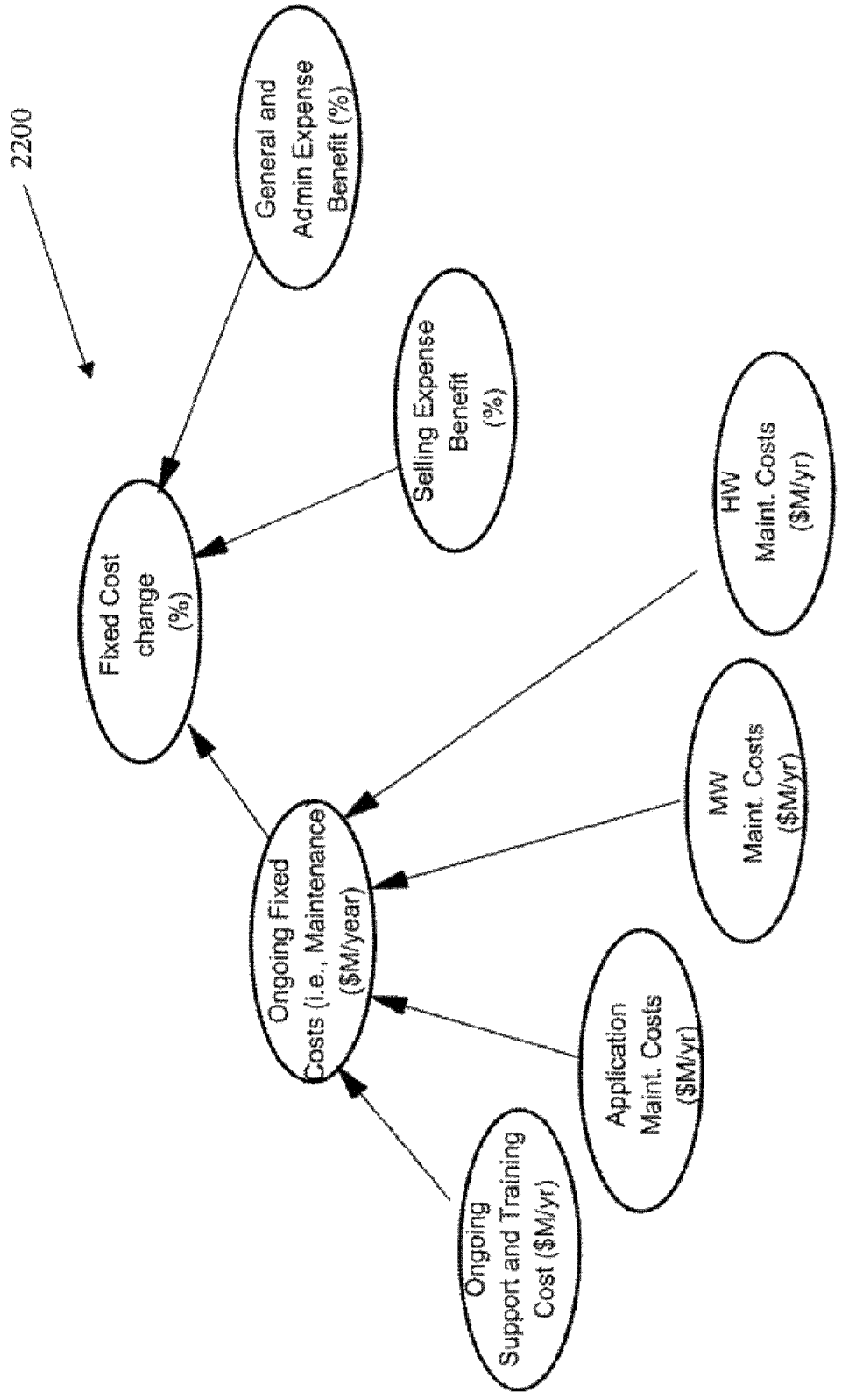

2200
General and Admin Expense Benefit (%)
Selling Expense Benefit (%)
Fixed Cost change (%)
HW Maint. Costs ($M/yr)
MW Maint. Costs ($M/yr)
Ongoing Fixed Costs (i.e., Maintenance ($M/year)
Application Maint. Costs ($M/yr)
Ongoing Support and Training Cost ($M/yr)

Fig. 22

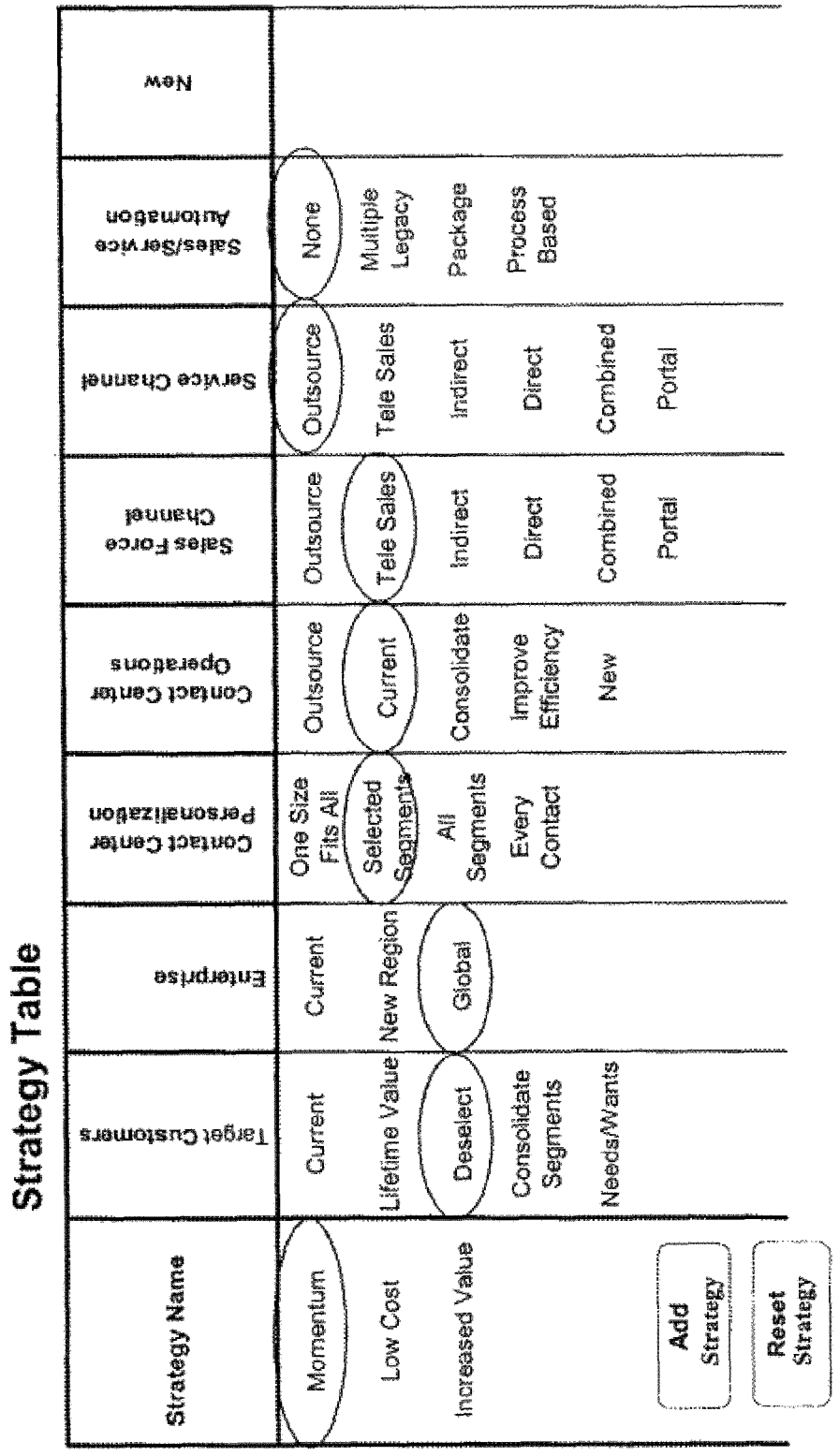

Strategy Table
Strategy Name
Target Customers
Enterprise
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
New
Momentum
Low Cost
Increased Value
Current
Lifetime Value
Deselect
Consolidate Segments
Needs/Wants
Current
New Region
Global
One Size Fits All
Selected Segments
All Segments
Every Contact
Outsource
Current
Consolidate
Improve Efficiency
New
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
None
Multiple Legacy
Package
Process Based
Add Strategy
Reset Strategy
2300

Fig. 23a

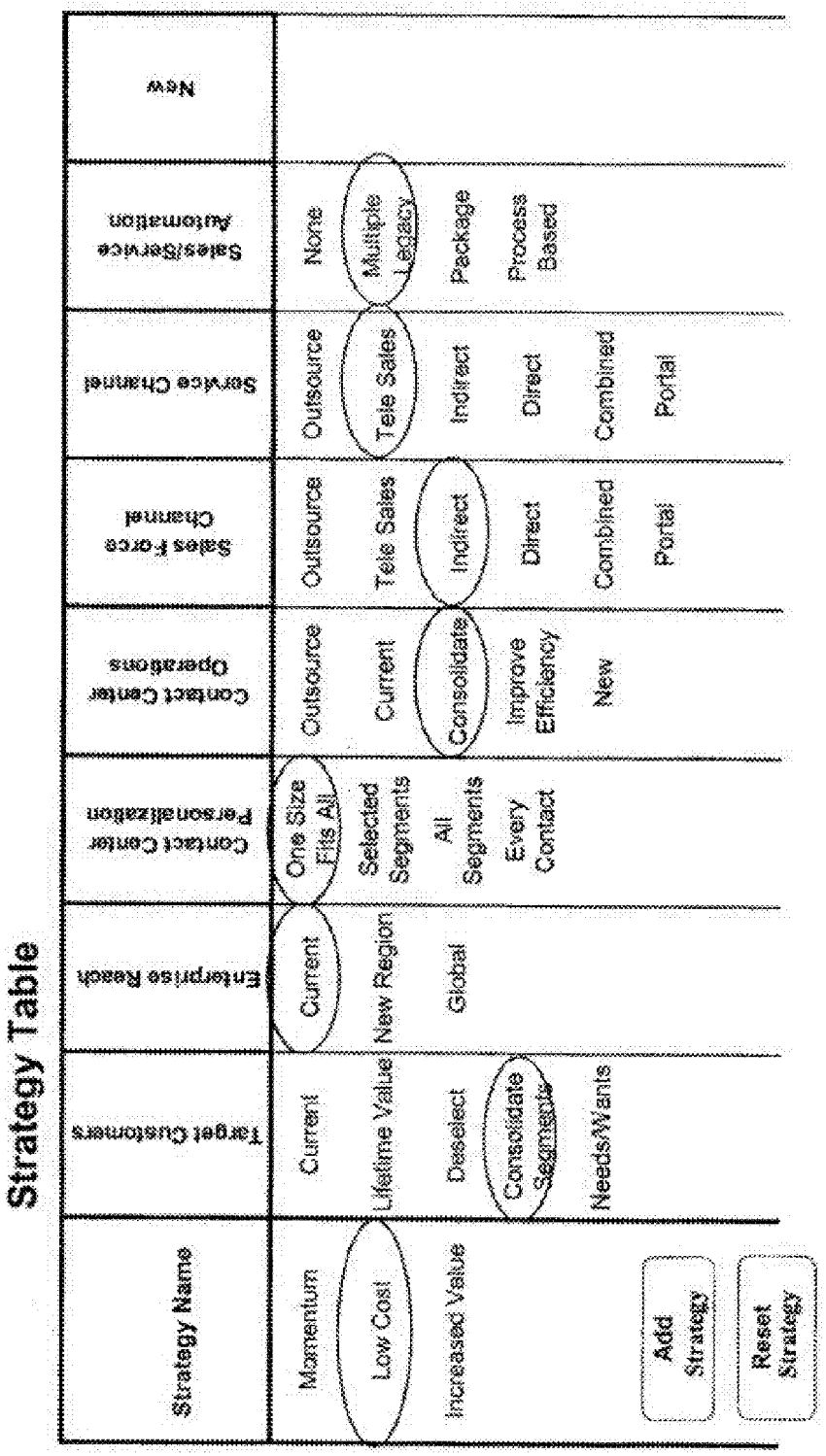

Strategy Table
Strategy Name
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
New
Momentum
Low Cost
Increased Value
Current
Lifetime Value
Deselect
Consolidate Segments
Needs/Wants
Current
New Region
Global
One Size Fits All
Selected Segments
All Segments
Every Contact
Outsource
Current
Consolidate
Improve Efficiency
New
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
None
Multiple Legacy
Package
Process Based
Add Strategy
Reset Strategy
2302

Fig. 23b

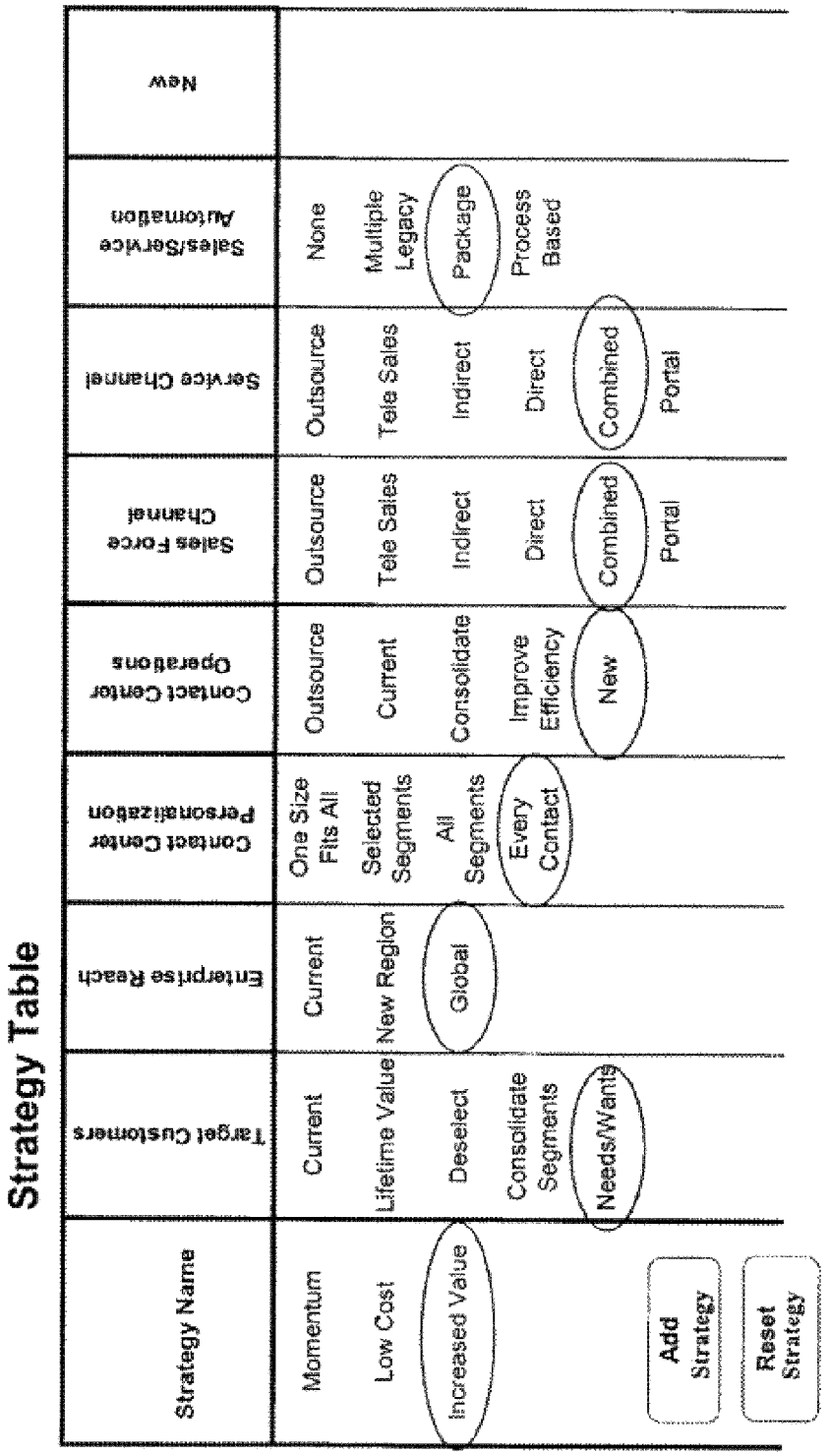

Strategy Table
Strategy Name
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
New
Momentum
Low Cost
Increased Value
Current
Lifetime Value
Deselect
Consolidate Segments
Needs/Wants
Current
New Region
Global
One Size Fits All
Selected Segments
All Segments
Every Contact
Outsource
Current
Consolidate
Improve Efficiency
New
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
None
Multiple Legacy
Package
Process Based
Add Strategy
Reset Strategy
2304

Fig. 23c

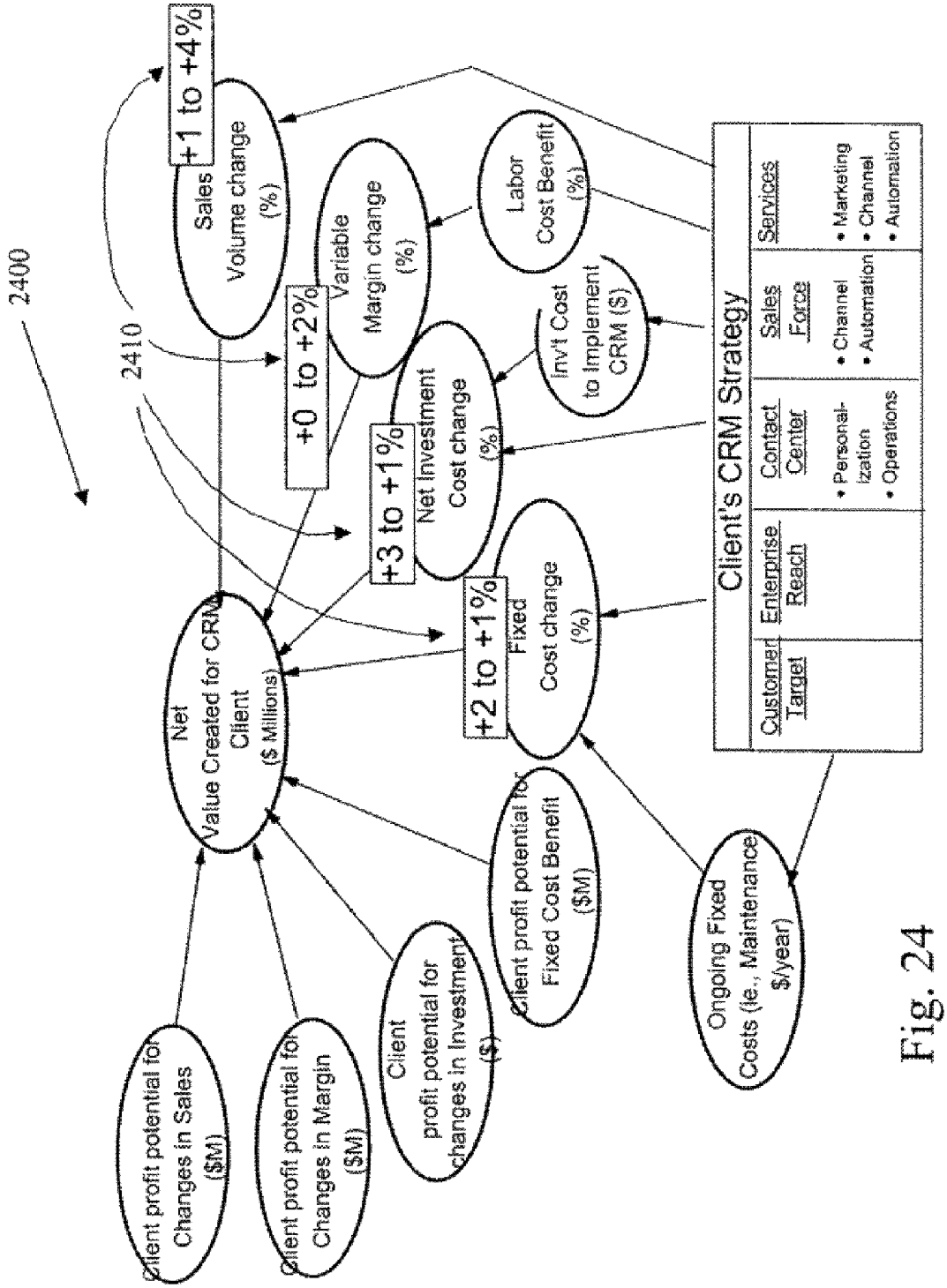

2400
2410
Net Value Created for CRM Client ($ Millions)
Sales Volume change (%)
+1 to +4%
+0 to +2%
Variable Margin change (%)
+3 to +1%
Net Investment Cost change (%)
+2 to +1%
Fixed Cost change (%)
Labor Cost Benefit (%)
Inv't Cost to Implement CRM ($)
Client's CRM Strategy
Customer Target
Enterprise Reach
Contact Center
• Personalization
• Operations
Sales Force
• Channel
• Automation
Services
• Marketing
• Channel
• Automation
Client profit potential for Changes in Sales ($M)
Client profit potential for Changes in Margin ($M)
Client profit potential for changes in Investment ($)
Client profit potential for Fixed Cost Benefit ($M)
Ongoing Fixed Costs (ie., Maintenance $/year)

Fig. 24

	Value of a one percent increase in the C3 attribute	Value of a one percent increase in the C3 attribute
C3 Attribute	**Typical New Vehicle for Automotive manufacturer ($ Millions/year)**	**Typical new software product for technology company ($ Millions/year)**
Sales Volume (units)	100	40
Variable Margin (%)	170	15
Investment Cost ($)	-20	-3
Fixed Cost ($)	-10	-30

2500

Fig. 25

C3 Attribute	Value of a one percent increase in the C3 attribute for a typical New Vehicle for Automotive manufacturer ($ Millions/year	Alternative 3: Best Buy/ Cost -Driven (Percent increase in the C3 attribute)	Total value for C3 attribute increase ($ Millions/year)
Sales Volume (units)	100	+2	200
Variable Margin (%)	170	+1	170
Investment Cost ($)	-20	+2	-40
Fixed Cost ($)	-10	+2	-20
Total			310

2600

Fig. 26

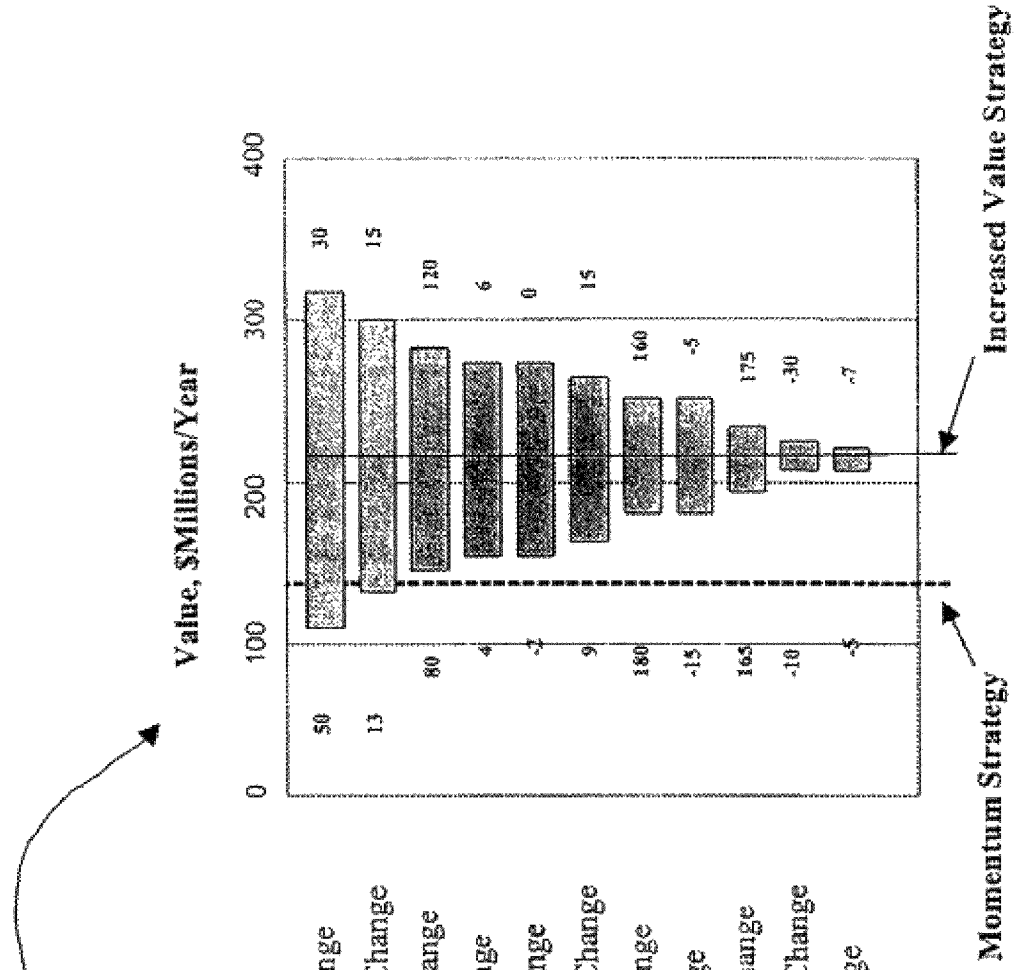

2700
Value, $Millions/Year
0
100
200
300
400
Uncertainties
Product Sales Volume Change
Client Profit for Product Sales Volume Change
Client Profit for Invest Cost Change
Product Margin Change
Service Sales Margin Change
Client Profit for Service Sales Volume Change
Service Sales Volume Change
Invest Cost Change
Client Profit for Fixed Cost Change
Client Profit for Service Sales Margin Change
Fixed Cost Change
50
13
80
4
-2
9
160
-15
165
-10
-5
30
15
120
6
0
15
160
-5
175
-30
-7
Momentum Strategy
Increased Value Strategy

Fig. 27

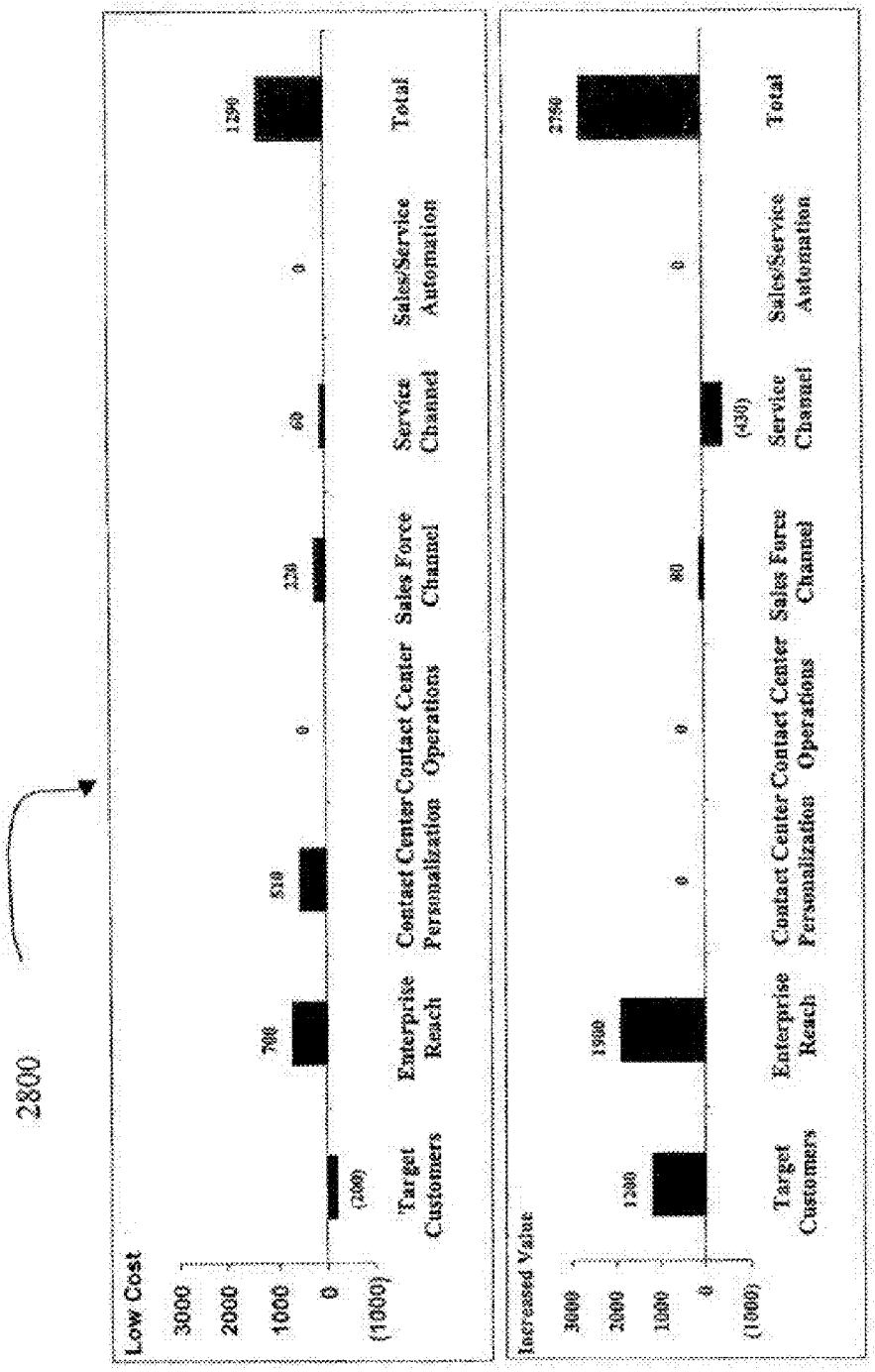

2800
Low Cost
3000
2000
1000
0
(1000)
(200)
700
510
0
220
60
0
1390
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
Total
Increased Value
3000
2000
1000
0
(1000)
1200
1900
0
0
80
(430)
0
2750
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
Total

Fig. 28

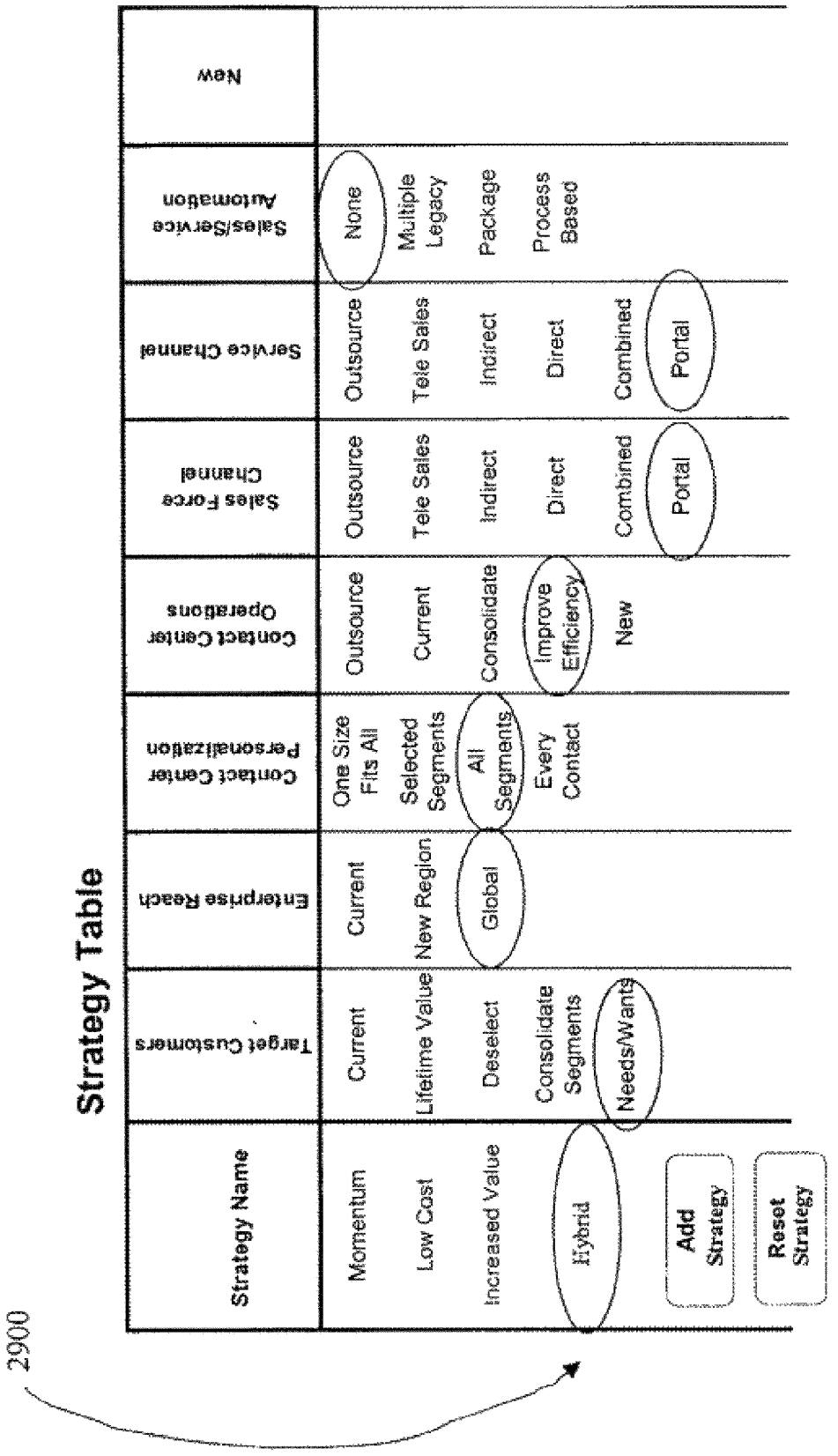

2900
Strategy Table
Strategy Name
Momentum
Low Cost
Increased Value
Hybrid
Target Customers
Current
Lifetime Value
Deselect
Consolidate Segments
Needs/Wants
Enterprise Reach
Current
New Region
Global
Contact Center Personalization
One Size Fits All
Selected Segments
All Segments
Every Contact
Contact Center Operations
Outsource
Current
Consolidate
Improve Efficiency
New
Sales Force Channel
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
Service Channel
Outsource
Tele Sales
Indirect
Direct
Combined
Portal
Sales/Service Automation
None
Multiple Legacy
Package
Process Based
New
Add Strategy
Reset Strategy

Fig. 29

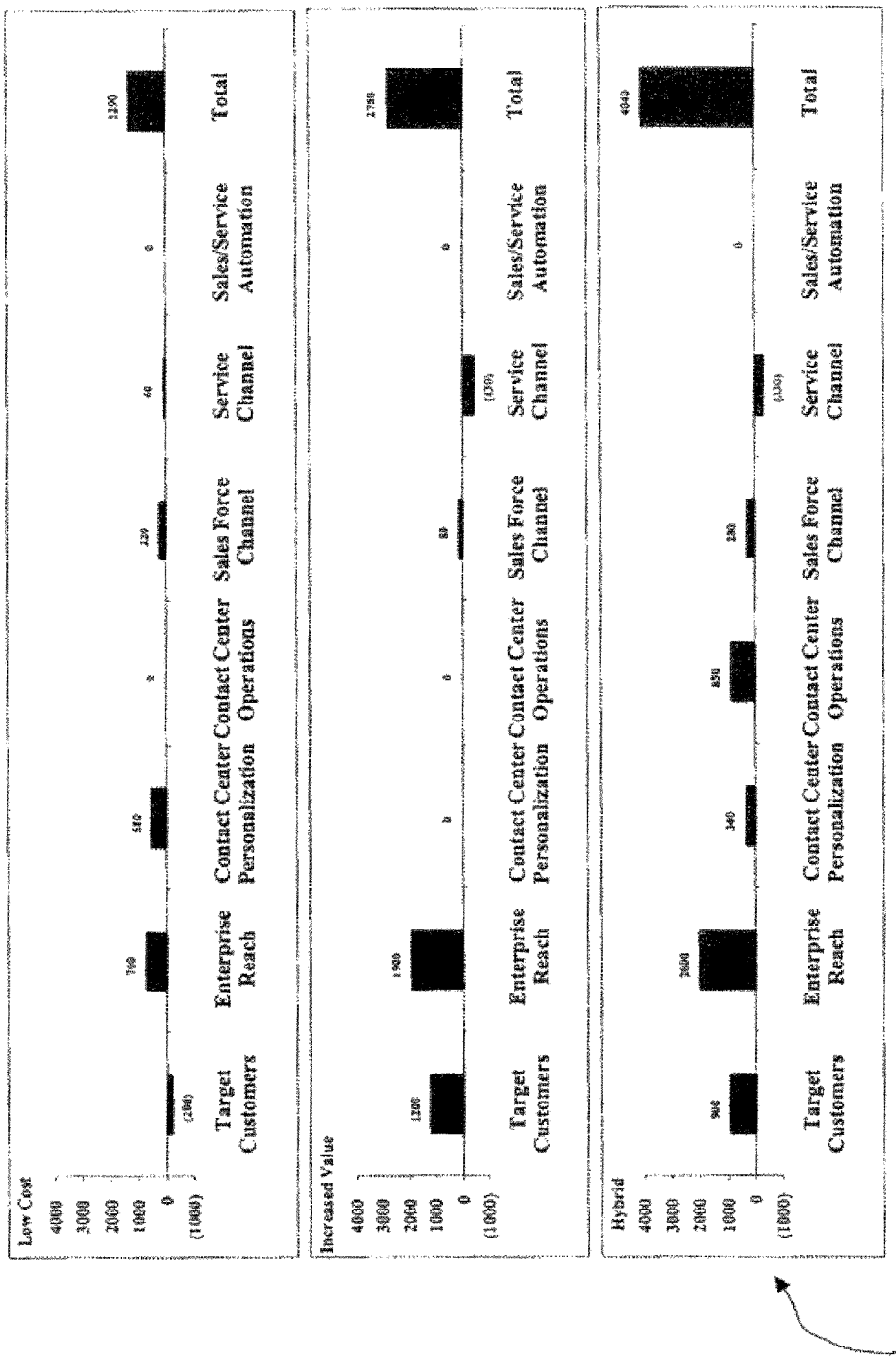

Low Cost
4000
3000
2000
1000
0
(1000)
(280)
760
510
0
220
60
1290
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
Total
Increased Value
4000
3000
2000
1000
0
(1000)
1200
1900
0
0
80
(320)
2758
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
Total
Hybrid
4000
3000
2000
1000
0
(1000)
960
2600
340
850
230
(330)
4040
Target Customers
Enterprise Reach
Contact Center Personalization
Contact Center Operations
Sales Force Channel
Service Channel
Sales/Service Automation
Total
3000

Fig. 30

SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR A COLLABORATIVE DECISION PLATFORM

RELATED APPLICATION(S)

This is a continuation of co-pending prior application Ser. No. 11/828,129 filed on Jul. 25, 2007, which is a continuation of application Ser. No. 11/045,543 filed on Jan. 28, 2005, which has issued under U.S. Pat. No. 7,401,059, which is a continuation of application Ser. No. 09/708,154 filed on Nov. 7, 2000, which has issued under U.S. Pat. No. 6,876,991, and which claims the priority of a previously filed provisional application with the title "Collaborative Decision Platform" filed Nov. 8, 1999 under Ser. No. 60/163,984, which are each incorporated herein by reference in their entirety.

FIELD OF THE INVENTION

The present invention relates to decision making logic, and more particularly to a computer-based platform which supports a decision making process.

BACKGROUND OF THE INVENTION

One of the first recorded decision making processes was proposed in the 18th century when. Benjamin Franklin suggested a process by which one of two decision alternatives could be selected through listing advantages of the alternatives side by side and canceling out advantages or groups of advantages judged to be equal on both sides. Subsequently many decision processes have been proposed and are in use today. These include popular ones, such as Kepner-Tregoe where criteria for making the decision are listed and the alternatives are assessed (on a scale from 1 to 10) as to how they perform on each of the criteria. The criteria are also weighted on a similar scale and the best alternative is judged to be the highest dot product of the criteria weights and the respective assessments for the alternative against the criteria. Various modifications to this basic process in order to take into account complexities of having multiple decision makers, refining the assessment process through pair-wise comparison, etc., have resulted in many other such decision processes such as Value Management, Analytic Hierarchy Process, and others. There are also several methodologies (such as decision analyses using decision trees and probability methods) aimed at assisting a decision-maker think, through the options one has in making a decision and potential outcomes of each option. However ninny of these decision processes are in fact not processes, but only individual tools to compare pre-defined alternatives within a pre-specified problem frame.

In order to create a process which enables multiple decision makers to make strategic decisions in organizationally and technically complex circumstances, the Dialogue Decision Process (DDP) was proposed as a sequence of four steps (framing, alternatives, analysis, connection) and is well described, in literature [Barabba, V. P., *Meeting of the Minds*, Harvard Business Press, and other sources].

However to date, a short-coming of the process above as well as other processes, is that there has been no way to ensure that it can be applied to any decision regardless of type, complexity or number of decision makers. Furthermore, there has been no software that supports the complete sequence of these steps since each decision tends to be unique. This has resulted in each instantiation of decision processes being tailored to a particular decision. In the case of DDP, this has resulted in the process being a relatively sophisticated tool only used in certain circumstances and only when facilitated by experienced practitioners.

There is therefore a need for a computer-implemented method which may be utilized for implementing DDP in different environments in a universal manner.

SUMMARY

A decision making system, method and computer program product are provided. Initially, a plurality of attributes is defined. Thereafter, first information regarding the attributes is received from a receiving business. Second information is then received regarding proposed products or services in terms of the attributes. Such second information is received from a supplying business. In use, a decision process is executed based on the first information and the second information.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates a method for providing a collaborative decision platform adapted to run on a computer;

FIG. **1***a* illustrates a system by which the method of FIG. **1** may be carried out;

FIG. **1***b* illustrates a networked decision making environment in accordance with one embodiment of the present invention;

FIG. **2** shows a representative hardware environment on which the collaborative decision platform of FIG. **1***a* ma be implemented;

FIG. **3** illustrates an example of Framing in accordance with one embodiment of the present invention;

FIG. **3***a* illustrates various logic associated with the Framing process of the present invention;

FIG. **4** illustrates an example of Alternatives in accordance with one embodiment of the present invention;

FIG. **4***a* illustrates various logic associated with the Alternatives process of the present invention which is capable of handling its various input for the purpose of generating a strategy table;

FIG. **5** illustrates an example of Analysis in accordance with one embodiment of the present invention;

FIG. **5***a* illustrates various logic associated with the Analysis process of the present invention;

FIG. **6** illustrates an example of Connection in accordance with one embodiment of the present invention;

FIG. **6***a* illustrates various logic associated with the Connection process of the present invention;

FIG. **7** illustrates the various connectivity between the various inputs and outputs of the Framing, Alternatives, Analysis, and Connection logic that comprises the users' interface;

FIGS. **8***a-i* illustrate an example of an application of the various logic components set forth in FIGS. **3-7**;

FIG. **9** illustrates a method for affording customer-centric collaborative decision making in a business-to-business framework;

FIGS. **9***a* and **10** illustrates tables associated with the method of FIG. **9**;

FIG. **11** is a schematic diagram showing the customer-centric collaborative protocol;

FIG. **12** illustrates a first example of the embodiment set forth in FIG. **11**;

FIG. **13** illustrates a second example of the embodiment set forth in FIG. **11**.

FIGS. **14** and **15** illustrate third and fourth examples, respectively, of the embodiment set forth in FIG. **11**, where an industry independent, open and scalable platform is provided for business-to business exchange of existing goods and services that are not commodities;

FIG. **16** illustrates a fifth example of the embodiment set forth in FIG. **11**, where an industry independent, open and scalable platform is provided for B2B real-time collaboration in the definition of future, non-existent goods and services;

FIGS. **17** and **18** illustrate sixth and seventh examples, respectively, of the embodiment set forth in FIG. **11**, where a new business design is provided that assists business-to-business enterprises in measuring the value creation for its customers; and

FIGS. **19** through **30** illustrate an exemplary application of the customer centric collaborative protocol.

DETAILED DESCRIPTION

FIG. **1** illustrates a method **100** for providing a collaborative decision platform adapted to run on a computer. Initially, an application capable of performing decision logic is executed. See operation **102**.

Information is then retrieved from a database in accordance with the decision logic, as indicated in operation **104**. Information is then delivered to and received from a user in accordance with the decision logic utilizing a user interface. Note operation **106**. The information is then processed in operation **108** utilizing the decision logic.

In use, the foregoing steps are carried out by a collaborative decision platform capable of retrieving and receiving the information, and processing such information for different purposes by executing different applications each capable of performing different decision logic. Note operation **110**. It should be noted that the various steps set forth hereinabove ma be carried out using universal modules capable of interfacing with different applications.

FIG. **1***a* illustrates a system **120** by which the foregoing method of FIG. **1** may be carried out. As shown, a collaborative decision platform **122** is provided which has an interface **125** with at least one application **124** for executing the decision logic, as set forth in operation **102** of FIG. **1**. Further included, is a database **126**, which has an interface **127** with the collaborative decision platform **122** in accordance with operation **104** of FIG. **1**. Further, a user interface **128** is provided for receiving information from and providing information to the users. The interfaces **125**, **127**, and **128** are defined by the collaborative decision platform **122**. The users may be an important element of the system **120**. Note the two-headed arrow representing the users' interface **128** with the collaborative decision platform **122** to indicate the interaction, while the single arrowhead of the interface **125** and **127** indicates input. Note operation **106** of FIG. **1**. The collaborative decision platform **122** may be run on any type of hardware architecture **130**.

As set forth earlier, the various steps of FIG. **1** may be carried out using universal modules capable of interfacing with different applications. Such different applications **124** may be capable of performing decision logic relating to any type of decision-making process (e.g. financial, medical, buying a house, selecting a corporate strategy, etc.). In use, the collaborative decision platform **122** enables decision-making processes through the sequence and connectivity of a set of common displays, which describes the decision to be made. The collaborative decision platform **122** further enables asynchronous, remote decision-making processes, i.e. the ability to have different people input data into the set of common displays at different times, and from different places. Further, the database **126** may take the form of any one or a plurality of databases which may or may not be interconnected via a network such as the Internet. To this end, the present embodiment is designed to foster clear and conscientious decision-making.

FIG. **1***b* illustrates a plurality of network **130** of decision environments for allowing enterprises to learn more rapidly and coordinate more effectively. Such a network of decision environments each include at least one collaborative user interface which each communicate with an enterprise learning and coordination module **132** that may include one or more collaborative decision platforms **122**. Such a network **130** may allow the decision environments to be a physical arrangement optimized for human decision making or a virtual environment consisting of only the computer hardware and the collaborative decision platform **122**.

FIG. **2** shows a representative hardware environment on which the collaborative decision platform **122** of FIG. **1***a* may be implemented. Such figure illustrates a typical hardware configuration of a workstation in accordance with a preferred embodiment having a central processing unit **210**, such as a microprocessor, and a number of other units interconnected via a system bus **212**.

The workstation shown in FIG. **2** includes a Random Access Memory (RAM) **214**., Read Only Memory (ROM) **216**, an I/O adapter **218** for connecting peripheral devices such as disk storage units **220** to the bus **212**, a user interface adapter **222** for connecting a keyboard **224**, a mouse **226**, a speaker **228**, a microphone **232**, and/or other user interface devices such as a touch screen (not shown to the bus **212**, communication adapter **234** for connecting the workstation to a communication network **235** (e.g. a data processing network) and a display adapter **236** for connecting the bus **212** to a display device **238**.

The workstation typically has resident thereon an operating system such as the Microsoft Windows NT or Windows/95 Operating System (OS), the IBM OS/2 operating system, the MAC OS, or UNIX operating system. Those skilled in the art will appreciate that the present invention may also be implemented on platforms and operating systems other than those mentioned.

A preferred embodiment is written using JAVA, C, and the C++ language and utilizes object oriented programming methodology. Object oriented programming (OOP) has become increasingly used to develop complex applications. As OOP moves toward the mainstream of software design and development, various software solutions require adaptation to make use of the benefits of OOP. A need exists for these principles of OOP to be applied to a messaging interface of an electronic messaging system such that a set of OOP classes and objects for the messaging interface can be provided.

OOP is a process of developing computer software using objects, including the steps of analyzing the problem, designing the system, and constructing the program. An object is a software package that contains both data and a collection of related structures and procedures. Since it contains both data and a collection of structures and procedures, it can be visualized as a self-sufficient component that does not require other additional structures, procedures or data to perform its specific task. OOP, therefore, views a computer program as a collection of largely autonomous components, called objects, each of which is responsible for a specific task. This concept of packaging data, structures, and procedures together in one component or module is called encapsulation.

In general, OOP components are reusable software modules which present an interface that conforms to an object

model and which are accessed at run-time through a component integration architecture. A component integration architecture is a set of architecture mechanisms which allow software modules in different process spaces to utilize each other's capabilities or functions. This is generally done by assuming a common component object model on which to build the architecture. It is worthwhile to differentiate between an object and a class of objects at this point. An object is a single instance of the class of objects, which is often just called a class. A class of objects can be viewed, as a blueprint, from which many objects can be formed.

OOP allows the programmer to create an object that is a part of another object. For example, the object representing a piston engine is said to have a composition-relationship with the object representing a piston. In reality, a piston engine comprises a piston, valves and many other components; the fact that a piston is an element of a piston engine can be logically and semantically represented in OOP by two objects.

OOP also allows creation of an object that "depends from" another object. If there are two objects, one representing a piston engine and the other representing a piston engine wherein the piston is made of ceramic, then the relationship between the two objects is not that of composition. A ceramic piston engine does not make up a piston engine. Rather it is merely one kind of piston engine that has one more limitation than the piston engine; its piston is made of ceramic. In this case, the object representing the ceramic piston engine is called a derived object, and it inherits all of the aspects of the object representing, the piston engine and adds further limitation or detail to it. The object representing the ceramic piston engine "depends from" the object representing the piston engine. The relationship between these objects is called inheritance.

When the object or class representing the ceramic piston engine inherits all of the aspects of the objects representing the piston engine, it inherits the thermal characteristics of a standard piston defined in the piston engine class. However, the ceramic piston engine object overrides these ceramic specific thermal characteristics, which are typically different from those associated with a metal piston. It skips over the original and uses new functions related to ceramic pistons. Different kinds of piston engines have different characteristics, but may have the same underlying functions associated with it (e.g., how many pistons in the engine, ignition sequences, lubrication, etc). To access each of these functions in any piston engine object, a programmer would call the same functions with the same names, but each type of piston engine may have different/overriding implementations of functions behind the same name. This ability to hide different implementations of a function behind the same name is called polymorphism and it greatly simplifies communication among objects.

With the concepts of composition-relationship, encapsulation, inheritance and polymorphism, an object can represent just about anything in the real world. In fact, one's logical perception of the reality is the only limit on determining the kinds of things that can become objects in object-oriented software. Some typical categories are as follows:

- Objects can represent physical objects, such as automobiles in a traffic-flow simulation, electrical components in a circuit-design program, countries in an economics model, or aircraft in an air-traffic-control system.
- Objects can represent elements of the computer-user environment such as windows, menus or graphics objects.
- An object can represent an inventory, such as a personnel file or a table of the latitudes and longitudes of cities.
- An object can represent user-defined data types such as time, angles, and complex numbers, or points on the plane.

With this enormous capability of an object to represent just about any logically separable matters. OOP allows the software developer to design and implement a computer program that is a model of some aspects of reality, whether that reality is a physical emit, a process, a system, or a composition of matter. Since the object can represent anything, the software developer can create an object which can be used as a component in a larger software project in the future.

If 90% of a new OOP software program consists of proven, existing components made from preexisting reusable objects, then only the remaining 10% of the new software project has to be written and tested from scratch. Since 90% already came from an inventory of extensively tested reusable objects, the potential domain from which an error could originate is 10% of the program. As a result, OOP enables software developers to build objects out of other, previously built objects.

This process closely resembles complex machinery being built out of assemblies and sub-assemblies. OOP technology, therefore, makes software engineering more like hardware engineering in that software is built from existing components, which are available to the developer as objects. All this adds up to an improved quality of the software as well as an increased speed of its development.

Programming languages are beginning to fully support the OOP principles, such as encapsulation, inheritance, polymorphism, and composition-relationship. With the advent of the C++ language, many commercial software developers have embraced OOP. C++ is an OOP language that offers a fast, machine-executable code. Furthermore. C++ is suitable for both commercial-application and systems-programming projects. For now, C++ appears to be the most popular choice among many OOP programmers, but there is a host of other OOP languages, such as Smalltalk, Common Lisp Object System (CLOS), and Eiffel. Additionally, OOP capabilities are being added to more traditional popular computer programming languages such as Pascal.

The benefits of object classes can be summarized, as follows:

- Objects and their corresponding classes break down complex programming problems into many smaller, simpler problems.
- Encapsulation enforces data abstraction through the organization of data into small, independent objects that can communicate with each other. Encapsulation protects the data in an object from accidental damage, but allows other objects to interact with that data by calling the object's member functions and structures.
- Subclassing and inheritance make it possible to extend and modify objects through deriving new kinds of objects from the standard classes available in the system. Thus, new capabilities are created without having to start from scratch.
- Polymorphism and multiple inheritance make it possible for different programmers to mix and match characteristics of many different classes and create specialized objects that can still work with related objects in predictable ways.
- Class hierarchies and containment hierarchies provide as flexible mechanism for modeling real-world objects and the relationships among them.
- Libraries of reusable classes are useful in many situations, but they also have some limitations. For example:

Complexity. In a complex system, the class hierarchies for related classes can become extremely confusing, with many dozens or even hundreds of classes.

Flow of control. A program written with the aid of class libraries is still responsible for the flow of control it must control the interactions among all the objects created from a particular library). The programmer has to decide which functions to call at what times for which kinds of objects.

Duplication of effort. Although class libraries allow programmers to use and reuse many small pieces of code, each programmer puts those pieces together in a different way. Two different programmers can use the same set of class libraries to write two programs that do exactly the same thing but whose internal structure (i.e., design) may be quite different, depending on hundreds of small decisions each programmer makes along the way. Inevitably, similar pieces of code end up doing similar things in slightly different ways and do not work as well together as they should.

Class libraries are very flexible. As programs grow more complex, more programmers are forced to reinvent basic solutions to basic problems over and over again. A relatively new extension of the class library concept is to have a framework of class libraries. This framework is more complex and consists of significant collections of collaborating classes that capture both the small scale patterns and major mechanisms that implement the common requirements and design in a specific application domain. They were first developed to free application programmers from the chores involved in displaying menus, windows, dialog boxes, and other standard user interface elements for personal computers.

Frameworks also represent a change in the way programmers think about the interaction between the code they write and code written by others. In the early days of procedural programming, the programmer called libraries provided by the operating system to perform certain tasks, but basically the program executed down the page from start to finish, and the programmer was solely responsible for the flow of control. This was appropriate for printing out paychecks, calculating a mathematical table, or solving other problems with a program that executed in just one way.

The development of graphical user interfaces began to turn this procedural programming arrangement inside out. These interfaces allow the user, rather than program logic, to drive the program and decide when certain actions should be performed. Today, most personal computer software accomplishes this by means of an event loop which monitors the mouse, keyboard, and other sources of external events and calls the appropriate parts of the programmer's code according to actions that the user performs. The programmer no longer determines the order in which events occur. Instead, a program is divided into separate pieces that are called at unpredictable times and in an unpredictable order. By relinquishing control in this way to users, the developer creates a program that is much easier to use. Nevertheless, individual pieces of the program written by the developer still call libraries provided by the operating system to accomplish certain tasks, and the programmer must still determine the flow of control within each piece after it's called by the event loop. Application code still "sits on top of" the system.

Even event loop programs require programmers to write a lot of code that should not need to be written separately for every application. The concept of an application framework carries the event loop concept further. Instead of dealing with all the nuts and bolts of constructing basic menus, windows, and dialog boxes and then making these things all work together, programmers using application frameworks start with working application code and basic user interface elements in place. Subsequently, they build from there by replacing some of the generic capabilities of the framework with the specific capabilities of the intended application.

Application frameworks reduce the total amount of code that a programmer has to write from scratch. However, because the framework is really a generic application that displays windows, supports copy and paste, and so on, the programmer can also relinquish control to a greater degree than event loop programs permit. The framework code takes care of almost all event handling and flow of control, and the programmer's code is called only when the framework needs it (e.g., to create or manipulate a proprietary data structure).

A programmer writing a framework program not only relinquishes control to the user (as is also true for event loop programs), but also relinquishes the detailed flow of control within the program to the framework. This approach allows the creation of more complex systems that work together in interesting ways, as opposed to isolated programs, having custom code, being created over and over again for similar problems.

Thus, as is explained above, a framework basically is a collection of cooperating classes that make up a reusable design solution for a given problem domain. It typically includes objects that provide default behavior (e.g., for menus and windows), and programmers use it by inheriting some of that default behavior and overriding other behavior so that the framework calls application code at the appropriate times.

There are three main differences between frameworks and class libraries:

Behavior versus protocol. Class libraries are essentially collections of behaviors that you can call when You want those individual behaviors in your program. A framework, on the other hand, provides not only behavior but also the protocol or set of rules that govern the ways in which behaviors can be combined, including rules for what a programmer is supposed to provide versus what the framework provides.

Call versus override. With a class library, the code the programmer instantiates objects and calls their member functions. It's possible to instantiate and call objects in the same way with a framework (i.e., to treat the framework as a class library), but to take full advantage of a framework's reusable design, a programmer typically writes code that overrides and is called by the framework. The framework manages the flow of control among its objects. Writing a program involves dividing responsibilities among the various pieces of software that are called by the framework rather than specifying how the different pieces should work together.

Implementation versus design. With class libraries, programmers reuse only implementations, whereas with frameworks, they reuse design. A framework embodies the way a family of related programs or pieces of software work. It represents a generic design solution that can be adapted to a variety of specific problems in a given domain. For example, a single framework can embody the way a user interface works, even though two different user interfaces created with the same framework might solve quite different interface problems.

Thus, through the development of frameworks for solutions to various problems and programming tasks, significant reductions in the design and development effort for software can be achieved. A preferred embodiment of the invention utilizes HyperText Markup Language (HTML) to implement documents on the Internet together with a general-purpose

secure communication protocol for a transport medium between the client and the Newco. HTTP or other protocols could be readily substituted for HTML without undue experimentation. Information on these products is available in T. Berners-Lee, D. Connoly, "RFC 1866: Hypertext Markup Language—2.0" (November 1995); and R. Fielding. H. Frystyk, T. Berners-Lee, J. Gettys and J. C. Mogul, "Hypertext Transfer Protocol—HTTP/1.1: HTTP Working Group Internet Draft" May 2, 1996). HTML is a simple data format used to create hypertext documents that are portable from one platform to another. HTML documents are SGML documents with generic semantics that are appropriate for representing information from a wide range of domains. HTML has been in use by the World-Wide Web global information initiative since 1990. HTML is an application of ISO Standard 8879; 1986 Information Processing Text and Office Systems; Standard Generalized Markup Language (SGML).

To date, Web development tools have been limited in their ability to create dynamic Web applications which span from client to server and intemperate with existing computing resources. Until recently, HTML has been the dominant technology used in development of Web-based solutions. However, HTML has proven to be inadequate in the following areas:

Poor performance;

Restricted user interface capabilities;

can only produce static Web pages;

Lack of interoperability with existing applications and data; and

Inability to scale.

Sun Microsystem's Java language solves many of the client-side problems by:

Improving performance on the client side;

Enabling the creation of dynamic, real-time Web applications; and

Providing the ability to create a wide variety of user interface components.

With Java, developers can create robust User Interface (UI) components. Custom "widgets" (e.g., real-time stock tickers, animated icons, etc.) can be created, and client-side performance is improved. Unlike HTML, Java supports the notion of client-side validation, offloading appropriate processing onto the client for improved performance. Dynamic, real-time Web pages can be created. Using the above-mentioned custom UI components, dynamic Web pages can also be created.

Suns Java language has emerged as an industry-recognized language for "programming the Internet." Sun defines Java as "a simple, object-oriented, distributed, interpreted, robust, secure, architecture-neutral, portable, high-performance, multithreaded, dynamic, buzzword-compliant, general-purpose programming language. Java supports programming for the Internet in the form of platform-independent Java applets." Java applets are small, specialized applications that comply with Sun's Java Application Programming Interface (API) allowing developers to add "interactive content" to Web documents (e.g., simple animations, page adornments, basic games, etc.). Applets execute within a Java-compatible browser (e.g., Netscape Navigator) by copying code from the server to client. From a language standpoint, Java's core feature set is based on C++. Sun's Java literature states that Java is basically. "C++ with extensions from Objective C for more dynamic method resolution."

Another technology that provides similar function to JAVA is provided by Microsoft and ActiveX Technologies, to give developers and Web designers wherewithal to build dynamic content for the Internet and personal computers. ActiveX includes tools for developing animation, 3-D virtual reality, video and other multimedia content. The tools use Internet standards, work on multiple platforms, and are being supported by over 100 companies, The group's building blocks are called ActiveX Controls, small, fast components that enable developers to embed parts of software in hypertext markup language (HTML) pages. ActiveX Controls work with a variety of programming languages including Microsoft Visual C++, Borland Delphi, Microsoft Visual Basic programming system and, in the future, Microsoft's development tool for Java, code named "Jakarta," ActiveX Technologies also includes ActiveX Server Framework, allowing developers to create server applications. One of ordinary skill in the art readily recognizes that ActiveX could be substituted for JAVA without undue experimentation to practice the invention.

It should be noted that, in one embodiment, the information database and the common displays may all be treated as objects by the platform. As such, the foregoing technology may be utilized in the implementation of the overall system, as embodied in FIG. **1***a*.

Preferred Embodiment

The platform of the present embodiment acts as a "decision engine" which drives the decision process through a sequence of logical steps to a conclusion. The users interface during these steps is the set of common displays exhibited by the platform. The users receive and provide specific decision information to the platform by entering or modifying the structure of the decision and the decision-relevant information in the display areas where appropriate. In order to start the process, the platform hosts a decision application which provides the structure for the type of decision that the user wants to make. The application and platform communicate through a standard interlace protocol. The platform guides the user through four steps (framing, alternatives, analysis and connection), but these are tailored to the decision at hand through the decision application.

FIG. **3** illustrates an example of Framing **300** in accordance with one embodiment of the present invention. The purpose of Framing is to clearly communicate to the users the capabilities of the chosen decision application **124** and to allow the users to modify the problem definition to the extent that the capability for modification has been incorporated by the authors of the application. During Framing, the specific decision application provides certain key pieces of information about the decision at hand as input in a specific format or protocol **125** specified by the collaborative decision platform **122** that describe the capabilities of that application. Such input may include the policies that form boundary conditions for the decision, the strategic decisions that can be made, the values that are important to the decision makers, the uncertainties that may impact the values desired, and the relationship of the above elements.

The Framing process, using this key input from the decision application **1124** in the specific format **125**, generates visual displays of a decision hierarchy **304** and an influence diagram **306**, to be confirmed or modified by the users. The users' information **129** is seen as an input to the framing process **300**, because the users interact with the platform **122** to produce a resultant decision hierarchy **304** and the influence diagram **306** that capture their collective view of the decision problem. Note the two-headed arrow representing the users' interface **128** with the collaborative decision platform **122** to indicate the interaction, while the single arrow head of the interface **125** indicates input. In the event that the

users are unable to successfully represent the decision problem as they see it with the initial decision application, they will select another application **124** and repeat the Framing process **300**.

FIG. **3***a* illustrates various logic **310** associated, with the Framing process of the present invention. As shown, a first Framing module **314** receives information from the decision application **124**, such as the specific policies, decisions (controllables) and tactics that it can accommodate with a logical structure. The first framing module **314** orders the precedence of decisions to output the decision hierarchy **304**. Decisions that have already been made are referred to as "policy," as set of one or more decisions of immediate interest are referred to as "strategy" or "strategic decisions" or just "decisions," and decisions that can be deferred until later are referred to as "tactics." The users confirm or modify **129** the policies, decisions and tactics. For example, the users may not want to address a particular decision at this time, in which case it would become a tactic.

Working in parallel with the first Framing module **314** is a second Framing module **316**. Such second Framing module **316** receives as input pertinent uncertainties or risks (uncontrollables), information sources and values that further describe the capabilities of the decision application **124**. The second Framing module **316** also receives as input the decisions identified by the first Framing module **314** and users' confirmation or modification **129** of the values, information sources and uncertainties. With such, the second Framing module **316** structures a relationship of decisions, values and uncertainties in form of the influence diagram and a corresponding directory to sources of information **306**.

FIG. **4** illustrates an example of Alternatives **400** in accordance with one embodiment of the present invention. The purpose of the Alternatives process is to develop a set of strategic alternatives that capture the range of possibilities envisioned by the users. After Framing, the platform moves to Alternatives, and receives from the decision application **124** and the information data base **126** alternative strategies each comprised of a set of coherent choices for each of the strategic decision. The users confirm or modify **129** the alternative strategies. The platform generates the visual display of the strategies defined on a strategy table **402**.

FIG. **4***a* illustrates various logic **406** associated with the Alternatives process of the present invention which is capable of generating several strategies defined on a strategy table **402**. Included with the Alternatives logic **406** is a first Alternatives module **410** that receives the decision hierarchy **304** generated by the Framing logic **310**. The first Alternatives module **410** obtains decision alternatives in each of the decision areas from the decision application **124** and from an information database **126** for the purpose of developing a strategy table. Each (strategic) decision from the decision hierarchy **304** becomes a column heading in the strategy table **402** with the alternatives for that decision arranged in a column beneath it. The first Alternatives module **410** also takes as input the users confirmation or modification **129** of the decision alternatives.

A second Alternatives module **412** combines the strategy table output of the first Alternatives module **410** with strategy descriptions from the decision application **124**. The strategy descriptions include a strategy, name and the selection of one alternative for each of the decisions that comprise the column headings in the strategy table **402**. The second Alternatives module **412** can then display the strategies on a strategy table and incorporate the users' confirmation or modifications **129**. For example, the users may want to define their own strategy, which they would do by providing the second Alternatives module **412** with a strategy name and the selection of and alternative in each column of the strategy table **402**.

FIG. **5** illustrates an example of Analysis **500** in accordance with one embodiment of the present invention. The purpose of the Analysis process is to enable the users to have a shared understanding of the significant sources of risk and value in each of the initially defined alternative strategies. During Analysis, the platform prompts the information database **126** for assessments on each of the uncertainties set forth in a format **127** specified as low estimate, nominal estimate, and high estimate. These assessments are made for uncertainties influenced by the choice of decision, as well as independent uncertainties.

Using the information generated previously and the model structure of the decision application **124**, the platform makes the necessary calculations to output tornado diagrams **502** and decision sensitivity output displays for each of the alternative strategies **509**. The users confirm or modify the input information **129** and structure from the decision application **124**. The tornado diagrams identify the sources of significant risk in each alternative strategy and the decision sensitivity identifies the sources of significant value in each alternative strategy.

FIG. **5***a* illustrates various logic **506** associated with the Analysis process of the present invention. As shown, a first Analysis module **508** receives as input the influence diagram **306**, identifying uncertainties and their relationship to the value and the decisions. The influence diagram also includes an information directory, which specifies the information database(s) **126** that will provide the decision-relevant information. This first Analysis module **508** also receives as input from the information data base(s) **126** assessed ranges or probabilities for each of the uncertainties identified by the influence diagram **306** generated using the Framing logic **310**. These data ranges are confirmed or modified by the users **129**.

The output of the first Analysis module **508** is further used by a second Analysis module **514**. The second Analysis module **514** takes as input the structural relationship of decisions, values and uncertainties from the decision application **124**. An example of such a structural relationship is a spreadsheet comprised of equations relating decisions, values and uncertainties. This output is, in turn, used to generate the tornado diagram **502** by varying each of the uncertainties over its range and recording the effect on value.

In parallel with the first and second Analysis modules is a third Analysis module **510** that takes as input the strategies defined on the strategy table **402**, the output of the first Analysis module **508** and the structural relationship of decisions, values and uncertainties from the decision application **124**. With such input, the third Analysis module **510** identifies a contribution to the total value of each alternative for each decision that comprises each strategy. Given this information, a decision sensitivity table **509** may be constructed.

FIG. **6** illustrates an example of Connection **600** in accordance with one embodiment of the present invention. The purpose of Connection is for the users to develop a new, more valuable "hybrid" strategy **602** combining the most valuable decisions in each of the initially, defined alternative strategies. During Connection, the users' insight into the sources of risk and value **129** interacts with new decision relevant information from the database **126** and the decision structure provided by the decision application **124** to output an evaluation of the hybrid strategy **602**.

FIG. **6***a* illustrates various logic **604** associated with the Connection process of the present invention. As shown, the logic **604** includes a first Connection module **606** which

receives as input a value contribution of each alternative for each decision that comprise each strategy, the decision sensitivity **509** generated by the Analysis logic **506**. The first connection module **606** also receives as input user insight **129** regarding how to combine the sources of value into a new, more valuable hybrid strategy. A second logic module **608** of the connection logic **604** takes as input the users' insight **129** about additional information sources that could reduce the significant uncertainties or risks identified in the tornado diagram **502**. This second Connection module **608** then selects that new information from an appropriate decision relevant database (perhaps one not previously used for this decision problem) **126**. The description of the new hybrid alternative from the first Connection module **606** and the new risk reducing information from the second Connection module **608** are input to a third module **610**. This third module **610** uses the structural relationship of decisions, values and uncertainties (e.g., spreadsheet) from the decision application **124** to output the value of the hybrid strategy **602**.

FIG. **7** illustrates the various logical connectivity among the various common displays of the Framing, Alternatives, Analysis, and Connection that comprise the users' interface **128**.

FIGS. **8***a-i* illustrate an example of an application of the various logic components set forth in FIGS. **3-7**. As shown, such illustrative application of the collaborative decision platform relates to an individual and his/her spouse, the users, selecting a strategy for participation an employer's stock purchase program. Initially, the collaborative decision platform executes a decision application selected by the users for developing stock purchase strategies.

In the Framing process, the collaborative decision platform uses input from the decision application to present the users with an initial decision hierarchy, which the users confirm or modify. The collaborative decision platform produces the resulting decision hierarchy **800**, shown in FIG. **8***a*, as an output, which identifies the decisions that are within the scope of the current decision making process.

The collaborative decision platform also uses input from the decision application to present the users with an initial influence diagram, which the users confirm or modify. The influence diagram identifies the critical uncertainties or risks, the decisions and the values that are important to the users, and it displays the relationships among them. The users confirm or modify the influence diagram. The collaborative decision platform produces the resulting influence diagram **802**, shown in FIG. **8***b*, as another output. Note that a directory of information sources **803** is included with the influence diagram.

The users are allowed to modify the influence diagram and the decision hierarchy only to the extent that the modifications were anticipated by the author of the application. This restriction assures that the alternative strategies that are defined in the Alternatives process can be analyzed with the spreadsheet provided by the decision application.

In the Alternatives process, the collaborative decision platform uses input from the decision application to present the users with an initial strategy table that is consistent with the decision hierarchy, which the users confirm or modify. One or more strategy names and their corresponding definitions on the strategy table are also presented to the users. The users may confirm or modify the strategies, including developing new strategies. The resulting strategy alternatives are displayed on strategy tables **804**, as shown in FIGS. **8***c* and **8***d*.

In the Analysis process, ranges on each uncertainty or risk **806**, as shown in FIG. **8***e*, are input from the specified decision-relevant databases **803** of FIG. **8***b*. The users may confirm or modify the ranges. The collaborative decision platform takes as input the spreadsheet residing in the decision application that includes equations and data relating the decisions and uncertainties to the value, which in this case is profit. The collaborative decision platform uses the spreadsheet, strategies and uncertainty ranges to produce the tornado diagram **808** and decision sensitivity **810** shown in FIGS. **8***f* and **8***g*.

In the connection process, the users define on the strategy table **804** a new, more valuable "hybrid" strategy **811** that combines the most valuable alternatives from each of the initially defined alternative strategies, as shown in FIG. **8***h*. In defining this hybrid strategy, the users are relying heavily on the shared insight and understanding from the tornado diagram and decision sensitivity. The collaborative decision platform uses the spreadsheet from the decision application to calculate the value of the hybrid **812**, as shown on FIG. **8***i*.

FIG. **9** illustrates a method **900** for affording customer-centric collaborative decision-making in a business-to-business framework. In one embodiment, the method **900** may be carried using the collaborative decision platform set forth hereinabove. In the alternative, the present method may be executed using any other desired architecture.

Initially, in operation **902**, a minimum set of attributes is defined. Thereafter, first information regarding each of the minimum set of attributes is received from a receiving business. Note operation **904**. Second information is then received regarding proposed products or services in terms of the minimum set of attributes, as indicated in operation **906**. Such second information is received from a supplying business.

In use, a decision process is executed based on the first information and the second information as to which products or services is suitable for the receiving business. Note operation **908**. The present embodiment thus provides a customer-centric collaborative protocol that defines the minimum informational requirement for collaborative decision-making between enterprises (B2B).

The customer-centric collaborative protocol exploits a commonality in the attributes of the value structure of many enterprises that is sufficient to assess the implications of many decisions. An illustrative minimum set of attributes could include: price, sales, variable cost, fixed cost and investment. For many strateuic decisions, knowing the affect of the decision on these attributes enables the enterprise to make an informed decision.

There are well-defined algorithms for the hierarchical expansion of each of the attributes in the minimum set in the event additional detail is required. When more detail is required, it may be nested within the higher level attributes. An expanded set of attributes could include: price, market share, market size, labor cost, material cost, administrative cost, annual expenses, working capital, plant and equipment, etc. The protocol or structure of the informational requirement is identical for a wide range of enterprises and many decisions within those enterprises, but the relative value of each attribute will be different. FIG. **9***a* illustrates a table **920** showing various customer-centric collaborative (C^3) attributes, and the value of a one-percent increases of such attributes in two different industries.

In accordance with the present invention, the supplying, enterprise is required to describe its alternatives in terms of their effect on the value attributes that matter to the receiving enterprise. FIG. **10** illustrates a table **1000** showing such an effect on the value attributes.

FIG. **11** is a schematic diagram showing the customer-centric collaborative (C^3) protocol. As set forth hereinabove,

the protocol defines the minimum informational requirement for decision making between enterprises (B2B). The value of improvements of each of the attributes is specified for a receiving enterprise **1100**. It should be noted that attributes are easily calculable for enterprises that focus on profit. However, even for enterprises that are not focused on profit, these same attributes are of critical importance. A supplying enterprise **1102** provides one or more alternative "attribute bundles" that describe products and services it is willing to deliver in terms of the attributes that matter to the receiving enterprise. An attribute bundle specifies how much of each attribute will be provided. It should be understood that the attribute levels can be assessed with little difficulty using for example an influence diagram. A decision module **1104** may then execute the method **900** of FIG. **9**. FIG. **1.2** illustrates a first example **1200** of the embodiment set forth in FIG. **11**. As shown, an industry independent, open and scalable platform may be provided that uses the customer-centric collaborative protocol for real-time, remote collaborative decision making among enterprises. The customer-centric collaborative protocol can be used with an architecture or process that supports collaborative decision-making, such as a collaborative decision platform **1202** which is similar to that set forth hereinabove.

FIGS. **13** and **14** illustrate a second and third example **1300** and **1400** of the embodiment set forth in FIG. **11**. In the embodiment of FIG. **13**, the customer-centric collaborative protocol and an architecture or process that supports collaborative decision making, such as the collaborative decision platform, may together enable an open, scalable, industry independent process for real-time, remote decision-making between a receiving enterprise **1302** and a supplying enterprise **1304**. As shown, the present embodiment may serve to negotiate an agreement **1306** to purchase and deliver the highest value combination of attributes. In a third embodiment shown in FIG. **14**, the customer-centric collaborative protocol and an architecture or process that supports collaborative decision making, such as the collaborative decision platform, may together enable an open, scalable, industry independent process for real-time, remote decision-making among a receiving enterprise **1402** and supplying enterprises **1404**. As shown, the present embodiment may serve to negotiate an agreement **1406** to purchase and deliver the highest value combination of attributes

FIG. **15** illustrates a fourth examples **1501**) of the embodiment set forth in FIG. **11**, where an industry independent, open and scalable platform is provided for B2B exchange of existing goods and services that are not commodities. In other words, an effective platform for a non-commodity exchange is afforded.

As shown in FIG. **15**, the alternative, attribute bundles **1501** can be offered by different enterprises **1504** and need not be commodities, but rather may differ on the level offered of every attribute. It should be understood that commodities are goods and services that can be defined without the information about or the interaction of the customer. As shown in FIG. **15**, the customer-centric collaborative protocol and an architecture or process that supports collaborative decision making, such as the collaborative decision platform, together enable an industry-independent, open and scalable platform for the real-time B2B exchange of existing goods and services **1506** that are not commodities.

FIG. **16** illustrates a fifth example **1600** of the embodiment set forth in FIG. **11**, where an industry independent, open and scalable platform is provided for B2B real-time collaboration in the definition of future, non-existent goods and services. As shown in FIG. **16**, the alternative attribute bundles **1601** can be offered by different enterprises and need not exist. Rather, they may represent proposals to deliver goods and services that could be developed in the future. As shown, an agreement **1606** may be negotiated to deliver the highest value combination of attributes in the future. FIGS. **17** and **18** illustrate sixth and seventh examples **1700** and **1800**, respectively, of the embodiment set forth in FIG. **11**, where a new business design is provided that assists B2B enterprises in measuring the value creation for its customers.

As shown in FIG. **17**, the customer-centric collaborative protocol and publicly available information **1702** may together enable a new business design that assists B2B enterprises in measuring the prospective value creation for its customers. With reference to FIG. **18**, a particular embodiment of that business design could include the customer-centric collaborative protocol, publicly available information **1702** and a collaborative decision platform **1802**, which together enable a new business design that assists B2B enterprises in measuring the retrospective value creation for its customers.

An exemplary application of a customer-centric collaborative protocol utilizing, the collaborative decision platform for the selection of a strategy for "Customer Relationship Management (CRM)" will now be set forth. In particular, the present B2B example relates to a receiving enterprise desirous of an improved CRM strategy and a supplying enterprise capable of delivering alternative CRM strategies.

In this case during the Framing process, the receiving enterprise provides the policies, which constrain the strategic alternatives. The supplying enterprise demonstrates its experience by offering a list of strategic decisions. The receiving enterprise believes that two of the decisions are tactical, i.e. can be made later. FIG. **19** illustrates the resulting decision hierarchy **1900** developed collaboratively and asynchronously. FIG. **20** shows the influence diagram **2000**, which identifies the critical uncertainties, the strategic decisions and the attributes **2020** that are of value to the receiving enterprise and which display the relationship among them. For two of the attributes, more detail is required and the higher level attributes are expanded hierarchically in those areas **2100** and **2200**, as shown in FIGS. **21** and **22**, respectively.

During the Alternatives process, three alternative strategies **2300**, **2302**, and **2304** are defined collaboratively on a strategy table in terms of the strategic decisions, as shown in FIGS. **23***a*, **23***b* and **23***c*, respectively. The strategy table developed remotely and asynchronously. The strategies are developed in the physical presence of both enterprises.

In the Analysis process, the supplying enterprise uses information from its database to assess the range of effect that the "Revenue Growth" strategy will have on each of the attributes **2410**. Note **2400** in FIG. **24**. Similar assessments are made for each of the other strategies. The receiving enterprise may establish its value for changes in each of the attributes as shown in the table **2500** of FIG. **25**.

The table **2600** in FIG. **26** shows the calculations performed inside the collaborative decision platform when the customer-centric collaborative protocol is used. As shown, the value of an alternative to the client can be estimated by multiplying the improvement in each attribute by the customer's value for changes in that attribute.

The remarkable simplicity of these calculations enables shared insight into the sources of risk and sources of value, which is displayed in the tornado diagram **2700** and decision sensitivity **2800** for each of the alternative strategies, as shown in FIGS. **27** and **28**, respectively. It should be noted

that different solutions might be appropriate for clients in different industries because of different client values for the C^3 attributes.

Using the shared understanding of the sources of risk and value in the initially defined alternative strategies, the supplying and receiving enterprise collaborate in developing a new, more valuable "hybrid" strategy **2900**, as shown in FIG. **29**. Its corresponding decision sensitivity **3000** of FIG. **30** compares the total value of the hybrid strategy with the initially defined alternatives and identifies its sources of value.

While various embodiments have been described above, it should be understood that they have been presented by way of example only, and not limitation. Thus, the breadth and scope of to preferred embodiment should not be limited by any of the above-described exemplary embodiments, but should be defined only in accordance with the following claims and their equivalents.

What is claimed is:

1. A method, comprising:

(a) defining a plurality of attributes to support a process that is related to decision-making and utilizes an application including at least one application that is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

(b) receiving first information regarding the attributes from a receiving business;

(c) receiving second information regarding proposed products or services in terms of the attributes, wherein the second information is received from a supplying business; and

(d) executing a decision process based on the first information and the second information;

wherein the process is capable of being executed using a system capable of: (i) retrieving stored information from a storage; (ii) receiving user information from a user utilizing a user interface; and (iii) processing the stored information and the user information for generating output of the processing; where one or more of (i)-(iii) are carried out utilizing, at least in part, one or more modules capable of accomplishing the one or more of (i)-(iii) for one or more purposes.

2. The method as recited in claim **1**, wherein the attributes include price, sales, variable costs, fixed cost and investment.

3. The method as recited in claim **2**, wherein the attributes further include market share, market size, labor cost, material cost, administrative cost, annual expenses, working capital, planning and equipment.

4. The method as recited in claim **1**, wherein the first information and second information are received utilizing a network.

5. The method as recited in claim **4**, wherein the network is the Internet.

6. A computer program product embodied on a computer readable medium, comprising:

computer code for causing execution of an application capable of being utilized in association with one or more attributes to support decision-making, the application including at least one application that is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

computer code for receiving first information regarding the one or more attributes in association with a receiving entity;

computer code for receiving second information regarding one or more products or services in terms of the one or more attributes; and

computer code for causing execution of a process that is related to the decision-making, based on the first information and the second information;

wherein the application is capable of being executed using a system capable of: (i) retrieving stored information from a storage; (ii) receiving user information from a user utilizing a user interface; and (iii) processing the stored information and the user information for generating output of the processing; where one or more of (i)-(iii) is carried out utilizing, at least in part, logic capable of accomplishing the one or more of (i)-(iii) for one or more purposes.

7. The computer program product as recited in claim **6**, wherein the attributes include price, sales, variable costs, fixed cost, and investment.

8. The computer program product as recited in claim **7**, wherein the attributes further include market share, market size, labor cost, material cost, administrative cost, annual expenses, working capital, planning and equipment.

9. The computer program product as recited in claim **6**, wherein the first information and second information are received utilizing a network.

10. The computer program product as recited in claim **9**, wherein the network is the Internet.

11. A system, comprising:

logic for executing an application capable being utilized in association with one or more attributes to support decision-making, the application including at least one application that is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

logic for receiving first information regarding the attributes from a receiving entity;

logic for receiving second information regarding proposed products or services in terms of the attributes, wherein the second information is associated with a supplying business; and

logic for executing a process that is related to decision-making, based on the first information and the second information;

wherein the application is capable of being executed in association with an entity capable of: (i) retrieving stored information from a storage; (ii) receiving user information from a user utilizing a user interface; and (iii) processing the stored information and the user information for generating output of the processing; where one or more of (i)-(iii) are carried out utilizing, at least in part, one or more modules capable of applying the one or more of (i)-(iii) differently.

12. The system as recited in claim **11**, wherein the attributes include price, sales, variable costs, fixed cost and investment.

13. The system as recited in claim **12**, wherein the attributes further include market share, market size, labor cost, material cost, administrative cost, annual expenses, working capital, planning and equipment.

14. The system as recited in claim **11**, wherein the first information and second information are received utilizing a network.

15. The system as recited in claim **14**, wherein the network is the Internet.

16. The computer program product as recited in claim 6, wherein the one or more attributes includes a plurality of the attributes.

17. The computer program product as recited in claim 16, wherein the plurality of the attributes are bundled.

18. The computer program product as recited in claim 16, further comprising computer code for hierarchical expansion of each of the attributes.

19. The computer program product as recited in claim 16, wherein the computer program product is operable such that a minimum set of the plurality of the attributes is required.

20. The computer program product as recited in claim 6, wherein the one or more attributes includes price.

21. The computer program product as recited in claim 6, wherein the one or more attributes relates to equipment.

22. The computer program product as recited in claim 6, wherein the one or more attributes includes price and relates to equipment.

23. The computer program product as recited in claim 6, wherein the one or more attributes includes an administrative cost.

24. The computer program product as recited in claim 6, wherein the one or more attributes includes at least one variable.

25. The computer program product as recited in claim 6, wherein the process includes a dialogue decision process.

26. The computer program product as recited in claim 6, wherein the logic includes decision logic.

27. The computer program product as recited in claim 6, wherein the logic is a component of the application.

28. The computer program product as recited in claim 6, wherein the logic is a component of a platform.

29. The computer program product as recited in claim 28, wherein the at least one application is separate from the platform.

30. The computer program product as recited in claim 28, wherein the platform is a decision platform.

31. The computer program product as recited in claim 28, wherein the platform is a collaborative decision platform.

32. The computer program product as recited in claim 6, wherein the logic is associated with a plurality of modules.

33. The computer program product as recited in claim 32, wherein the plurality of modules includes universal modules.

34. The computer program product as recited in claim 32, wherein the plurality of modules includes at least one of a framing module, an alternatives module, an analysis module, and a connection module.

35. The computer program product as recited in claim 32, wherein the plurality of modules includes a framing module.

36. The computer program product as recited in claim 32, wherein the plurality of modules includes an alternatives module.

37. The computer program product as recited in claim 32, wherein the plurality of modules includes an analysis module.

38. The computer program product as recited in claim 32, wherein the plurality of modules includes a connection module.

39. The computer program product as recited in claim 32, wherein the plurality of modules includes a framing module, an alternatives module, an analysis module, and a connection module.

40. The computer program product as recited in claim 6, wherein the logic is implemented utilizing software components including a software component that is capable of being used to initialize the process.

41. The computer program product as recited in claim 6, wherein the logic is implemented utilizing software components including a software component that is capable of being used to develop decision related alternatives in the process.

42. The computer program product as recited in claim 6, wherein the logic is implemented utilizing software components including a software component that is capable of being used to analyze alternatives in the process.

43. The computer program product as recited in claim 6, wherein the logic is implemented utilizing software components including a software component that is capable of being used to process decision-related alternatives to develop a solution.

44. The computer program product as recited in claim 6, wherein the logic is implemented utilizing software components including:

a first software component that is capable of being used to initialize the process,

a second software component that is capable of being used to develop decision-related alternatives in the process,

a third software component that is capable of being used to analyze the decision-related alternatives in the process, and

a fourth software component that is capable of being used to process the decision-related alternatives to develop a solution.

45. The computer program product as recited in claim 6, wherein the logic is implemented with hardware.

46. The computer program product as recited in claim 6, wherein the logic is implemented with software.

47. The computer program product as recited in claim 6, wherein at least a portion of the computer code is carried out using modules capable of interfacing with different applications adapted for applying the universal modules differently.

48. The computer program product as recited in claim 6, wherein the process is performed in real-time.

49. The computer program product as recited in claim 6, wherein input associated with the first information is received via a network.

50. The computer program product as recited in claim 49, wherein the network is the Internet.

51. The computer program product as recited in claim 6, wherein the second information is received via a network.

52. The computer program product as recited in claim 6, wherein the logic is industry-independent.

53. The computer program product as recited in claim 6, wherein the logic is performed by a collaborative decision platform.

54. The computer program product as recited in claim 6, wherein at least a portion of the computer program product is implemented using modules capable of interfacing with different applications adapted for applying the modules to different sectors.

55. The computer program product as recited in claim 54, wherein the sectors include different business sectors that include at least one of a real estate-related business sector, medical-related business sector, corporate-related business sector, or financial-related business sector.

56. The computer program product as recited in claim 54, wherein an interface protocol is utilized to interface the different applications with the modules.

57. The computer program product as recited in claim 56, wherein the interface protocol includes a standard interface protocol.

58. The computer program product as recited in claim 6, wherein the process relates to a determination as to which of the products or services is suitable for the receiving entity.

59. The computer program product as recited in claim 6, wherein the products or services include products.

60. The computer program product as recited in claim 59, wherein the products include non-existent products.

61. The computer program product as recited in claim 59, wherein the products include existent products.

62. The computer program product as recited in claim 6, wherein the products or services include services.

63. The computer program product as recited in claim 6, wherein the first information regarding the one or more attributes is entered by the receiving entity.

64. The computer program product as recited in claim 6, further comprising computer code for providing at least one first interface that allows the user to form at least one boundary condition associated with the decision-making.

65. The computer program product as recited in claim 64, wherein the at least one first interface that allows the user to form at least one boundary condition associated with the decision-making allows the user to form a plurality of boundary conditions.

66. The computer program product as recited in claim 6, further comprising computer code for providing at least one first interface that allows the user to input at least one tactic associated with the decision-making.

67. The computer program product as recited in claim 6, further comprising computer code for providing at least one first interface that allows the user to input at least one policy associated with the decision-making.

68. The computer program product as recited in claim 67, wherein the at least one first interface allows the user to enter at least one decision relating to the process.

69. The computer program product as recited in claim 67, wherein the at least one first interface allows the user to enter at least one decision relating to the process.

70. The computer program product as recited in claim 67, wherein the at least one first interface allows the user to enter at least one tactic relating to the process.

71. The computer program product as recited in claim 6, further comprising computer code for providing at least one first interface that allows the user to form at least one boundary condition associated with the decision-making utilizing a menu.

72. The computer program product as recited in claim 64, further comprising computer code for providing at least one additional first interface that allows the user to form at least one additional boundary condition associated with the decision-making.

73. The computer program product as recited in claim 6, further comprising computer code for providing at least one first interface that allows the user to input important values associated with the decision-making.

74. The computer program product as recited in claim 73, further comprising computer code for providing at least one additional first interface that allows the user to input additional important values associated with the decision-making.

75. The computer program product as recited in claim 74, wherein the computer program product is operable such that the at least one first interface and the at least one additional first interface work in parallel in connection with at least one common display.

76. The computer program product as recited in claim 74, wherein the computer program product is operable such that the important values and the additional important values are capable of being modified.

77. The computer program product as recited in claim 6, further comprising computer code for providing at least one first interface that allows the user to form at least one boundary condition associated with the decision-making, and allows the user to provide input associated with important aspects associated with the decision-making.

78. The computer program product as recited in claim 77, wherein the computer program product is operable such that the at least one boundary condition and the important aspects are capable of being modified.

79. The computer program product as recited in claim 77, wherein the at least one first interface is an element of a framing interface.

80. The computer program product as recited in claim 77, further comprising computer code for providing at least one additional first interface a content of which is a function of input provided using the at least one first interface.

81. The computer program product as recited in claim 77, further comprising computer code for providing at least one additional first interface that allows the user to form at least one additional boundary condition associated with the decision-making, and allows the user to provide input associated with additional important aspects associated with the decision-making.

82. The computer program product as recited in claim 77, further comprising computer code for providing at least one second interface that displays a plurality of alternatives.

83. The computer program product as recited in claim 82, wherein the alternatives include alternate choices.

84. The computer program product as recited in claim 83, wherein the alternatives are displayed in a table.

85. The computer program product as recited in claim 84, wherein at least one aspect of input received from the user via the least one first interface drives a column heading in the table with the alternatives for the column heading arranged therebeneath.

86. The computer program product as recited in claim 83, further comprising computer code for confirming at least one of the alternatives.

87. The computer program product as recited in claim 83, further comprising computer code for modifying the alternatives.

88. The computer program product as recited in claim 83, further comprising computer code for providing at least one additional second interface that displays the plurality of alternatives, as modified by user input.

89. The computer program product as recited in claim 83, further comprising computer code for providing at least one additional second interface a content of which is a function of input provided using the at least one second interface.

90. The computer program product as recited in claim 83, further comprising computer code for providing at least one third interface that displays sources of value in each of the alternatives.

91. The computer program product as recited in claim 83, further comprising computer code for providing at least one third interface that allows the user to modify input information.

92. The computer program product as recited in claim 90, wherein the at least one third interface is an element of an analysis interface.

93. The computer program product as recited in claim 90, wherein the at least one third interface allows the user to modify a range of data.

94. The computer program product as recited in claim 90, further comprising computer code for providing at least one additional third interface that provides a decision sensitivity display.

95. The computer program product as recited in claim 90, further comprising computer code for providing at least one

additional third interface a content of which is a function of input provided using the at least one third interface.

96. The computer program product as recited in claim **6**, further comprising computer code for receiving third information that includes public information.

97. The computer program product as recited in claim **96**, wherein the computer program product is operable such that the third information is received from a source separate from the receiving entity and the supplying business.

98. The computer program product as recited in claim **96**, wherein the computer program product is operable such that the third information is utilized as a function of user input.

99. The computer program product as recited in claim **96**, wherein the computer program product is operable such that the third information is received from the receiving entity.

100. The computer program product as recited in claim **96**, wherein the third information relates to the one or more products or services.

101. The computer program product as recited in claim **96**, wherein the third information relates to a value of at least one aspect of the one or more products or services.

102. The computer program product as recited in claim **101**, wherein the at least one aspect of the one or more products or services includes the one or more attributes.

103. The computer program product as recited in claim **96**, wherein the third information relates to the one or more attributes.

104. The computer program product as recited in claim **96**, wherein the third information relates to a value of the one or more attributes.

105. The computer program product as recited in claim **96**, wherein the computer program product is operable such that the third information measures the retrospective value creation for customers of the supplying business.

106. The computer program product as recited in claim **96**, wherein the computer program product is operable such that the third information is utilized in association with a collaborative decision platform.

107. The computer program product as recited in claim **97**, further comprising computer code for allowing the receiving entity to provide insight in association with the source.

108. The computer program product as recited in claim **97**, further comprising computer code for allowing the receiving entity to provide insight in association with the source, in order to reduce risk associated with the decision-making.

109. The computer program product as recited in claim **97**, further comprising computer code for allowing the receiving entity to effect a modification in association with the third information of the source.

110. The computer program product as recited in claim **97**, further comprising computer code for allowing the receiving entity to provide a confirmation in association with the source.

111. The computer program product as recited in claim **97**, further comprising computer code for allowing the user to provide insight in association with the source.

112. The computer program product as recited in claim **97**, further comprising computer code for allowing the user to provide insight in association with the source, in order to reduce risk associated with the decision-making.

113. The computer program product as recited in claim **97**, further comprising computer code for allowing the user to modify the third information of the source.

114. The computer program product as recited in claim **97**, further comprising computer code for allowing the user to provide a confirmation in association with the source.

115. The computer program product as recited in claim **97**, further comprising computer code for providing source information that specifies the source.

116. The computer program product as recited in claim **115**, wherein the source information includes a directory.

117. The computer program product as recited in claim **115**, wherein the source information includes at least one person's name.

118. The computer program product as recited in claim **115**, wherein the source information specifies a plurality of sources of the third information.

119. The computer program product as recited in claim **6**, wherein the at least one application is the corporate-related application.

120. The computer program product as recited in claim **6**, wherein the at least one application is the product supply-related application.

121. The computer program product as recited in claim **6**, wherein the at least one application is the service supply-related application.

122. The computer program product as recited in claim **6**, wherein the at least one application is the financial-related application.

123. The computer program product as recited in claim **6**, wherein the at least one application is the real estate-related application.

124. The computer program product as recited in claim **6**, wherein the computer program product is operable such that real-time collaborative decision-making is provided between the receiving entity and the supplying business.

125. The computer program product as recited in claim **6**, wherein the computer program product is operable such that alternatives of the supplying business are provided in terms of an associated effect on the first information.

126. The computer program product as recited in claim **6**, and further comprising computer code for assessing uncertainties for analysis purposes.

127. The computer program product as recited in claim **6**, wherein the at least one application is the product supply-related application and the product supply-related application relates to marketing at least one product.

128. The computer program product as recited in claim **6**, wherein the at least one application is the service supply-related application and the service supply-related application relates to marketing at least one service.

129. The computer program product as recited in claim **6**, wherein the at least one application is the corporate-related application and the corporate-related application relates to marketing.

130. The computer program product as recited in claim **6**, wherein the process is related to a business-to-business transaction.

131. The computer program product as recited in claim **6**, wherein the computer code for receiving the first information, receiving the second information, and causing execution of the process are executed using the system.

132. The computer program product as recited in claim **6**, wherein the second information includes information relating to controllables.

133. The computer program product as recited in claim **6**, wherein the second information includes information relating to uncertainties.

134. The computer program product as recited in claim **133**, wherein the uncertainties include independent uncertainties.

135. The computer program product as recited in claim 133, wherein the uncertainties include uncertainties dependent on decisions.

136. The computer program product as recited in claim 133, wherein the uncertainties include at least one of a product sales volume change, a margin change, a cost change, or a margin change.

137. The computer program product as recited in claim 133, wherein the uncertainties include at least two of a product sales volume change, a margin change, a cost change, and a margin change.

138. The computer program product as recited in claim 133, wherein the uncertainties include at least three of a product sales volume change, a margin change, a cost change, and a margin change.

139. The computer program product as recited in claim 6, wherein the second information includes information relating to information sources.

140. The computer program product as recited in claim 6, wherein the second information includes information relating to decision alternatives.

141. The computer program product as recited in claim 6, wherein the second information includes information relating to sources of value.

142. The computer program product as recited in claim 6, wherein the computer program product utilizes a structural relationship of decisions.

143. The computer program product as recited in claim 6, wherein the computer program product utilizes input from a spreadsheet.

144. The computer program product as recited in claim 6, wherein the computer program product utilizes at least one equation relating to at least one decision.

145. The computer program product as recited in claim 6, wherein the computer program product utilizes a plurality of equations relating to a plurality of decisions.

146. The computer program product as recited in claim 6, wherein the computer program product utilizes structural relationship of decisions, values, and uncertainties.

147. The computer program product as recited in claim 6, wherein the computer program product is capable of supporting an asynchronous decision-making process.

148. The computer program product as recited in claim 6, wherein the computer program product utilizes policies that form boundary conditions for a decision.

149. The computer program product as recited in claim 6, wherein the computer program product utilizes values that are important to a decision and uncertainties that potentially impact the values.

150. The computer program product as recited in claim 6, wherein the storage includes a database.

151. The computer program product as recited in claim 150, wherein the database includes at least one decision-relevant database.

152. The computer program product as recited in claim 150, wherein the database is one of a plurality of databases that are included.

153. The computer program product as recited in claim 152, wherein the plurality of databases are coupled via at least one network.

154. The computer program product as recited in claim 6, wherein the system includes a decision platform.

155. The computer program product as recited in claim 154, wherein the decision platform includes a platform that supports decision-making.

156. The computer program product as recited in claim 6, wherein the system includes the application.

157. The computer program product as recited in claim 6, wherein the products or services include products.

158. The computer program product as recited in claim 6, wherein the process includes an asynchronous remote decision-making process.

159. The computer program product as recited in claim 6, wherein the one or more attributes includes a plurality of the attributes, and the computer program product further comprising:

computer code for providing at least one first interface that allows the receiving entity to enter a boundary condition associated with the decision-making, wherein the boundary condition is capable of being modified and involves price;

computer code for providing at least one additional first interface that allows the user to provide input indicative of aspects associated with the decision-making, wherein the aspects are capable of being modified;

computer code for providing at least one second interface that displays a plurality of alternatives that include alternate choices, based, at least in part, on the boundary condition and the aspects;

computer code for providing at least one additional second interface that displays the plurality of alternatives, as modified by user input;

computer code for providing at least one third interface that displays relative value associated with each of the alternatives, and allows the user to make modifications; and

computer code for receiving third information that includes public information, wherein the third information is received from a source separate from the receiving entity and the supplying business, and relates to a value of at least one aspect of the one or more products or services, for identifying a retrospective value creation for a plurality of customers, wherein the computer program product is operable such that the process that is related to decision-making is capable of being executed based on the first information, the second information, and the third information, such that the at least one third interface includes content that is a function of the first information, the second information, and the third information.

160. The computer program product as recited in claim 6, wherein the one or more attributes includes a plurality of the attributes, and the computer program product further comprising:

computer code for providing at least one first interface that is adapted to receive input indicative of at least one price associated with the decision-making, wherein the at least one price is capable of being modified;

computer code for providing at least one additional first interface that allows the user to input aspects associated with the decision-making, wherein the aspects are capable of being modified; and

computer code for providing at least one second interface that displays a plurality of alternatives that include alternate choices, based, at least in part, on the at least one price and the aspects.

161. The computer program product as recited in claim 160, further comprising computer code for providing at least one third interface that displays value associated with each of the alternatives, and allows the user to make modifications.

162. The computer program product as recited in claim 160, further comprising computer code for receiving third information that includes public information, wherein the third information is received from a source separate from the

receiving entity and the supplying business, and relates to a value of at least one aspect of the one or more products or services.

163. The computer program product as recited in claim **162**, wherein the computer program product is operable such that the process that is related to decision-making is capable of being executed based on the first information, the second information, and the third information.

164. The computer program product as recited in claim **160**, further comprising computer code for providing an ability to allow different people input data into a set of displays at different times, and from different places, in order to support the decision-making.

165. The computer program product as recited in claim **160**, wherein the at least one first interface, the at least one additional first interface, and the at least one second interface, include web pages.

166. The computer program product as recited in claim **165**, wherein at least one of the web pages includes a dynamic web page.

167. The computer program product as recited in claim **160**, wherein the at least one first interface, the at least one additional first interface, and the at least one second interface, each is an interface object.

168. The computer program product as recited in claim **160**, wherein the at least one first interface, the at least one additional first interface, and the at least one second interface, each is an interface element.

169. The computer program product as recited in claim **165**, wherein at least one of the web pages includes a video.

170. The computer program product as recited in claim **162**, wherein the third information is received from the receiving entity.

171. The computer program product as recited in claim **162**, wherein the third information relates to at least one aspect of the one or more products or services.

172. The computer program product as recited in claim **171**, wherein the at least one aspect of the one or more products or services includes the one or more attributes.

173. The computer program product as recited in claim **162**, wherein the third information relates to the one or more attributes.

174. The computer program product as recited in claim **162**, wherein the third information relates to a value of the one or more attributes.

175. The computer program product as recited in claim **162**, wherein the third information measures the retrospective value creation for customers of the supplying business.

176. The computer program product as recited in claim **162**, wherein the computer program product is operable such that the third information is utilized in association with a collaborative decision platform.

177. The computer program product as recited in claim **160**, wherein the computer program product is operable such that the alternatives are displayed in a table.

178. The computer program product as recited in claim **177**, wherein at least one aspect of input from the user via the least one first interface drives a column heading in the table with the alternatives for the column heading arranged therebeneath.

179. The computer program product as recited in claim **160**, further comprising computer code for modifying the alternatives.

180. The computer program product as recited in claim **160**, further comprising computer code for selecting the alternatives.

181. The computer program product as recited in claim **180**, wherein the alternatives includes choices.

182. The computer program product as recited in claim **161**, wherein the at least one third interface is element of an analysis interface.

183. The computer program product as recited in claim **161**, wherein the at least one third interface allows the user to modify a range of data.

184. The computer program product as recited in claim **161**, further comprising computer code for providing at least one additional third interface that provides a decision sensitivity display.

185. The computer program product as recited in claim **161**, further comprising computer code for providing at least one fourth interface that provides a potential feasible hybrid theme.

186. The computer program product as recited in claim **161**, further comprising computer code for providing at least one additional third interface the content of which is a function of input provided using the at least one third interface.

187. The computer program product as recited in claim **160**, wherein the at least one first interface allows the user to form a plurality of boundary conditions.

188. The computer program product as recited in claim **160**, wherein the at least one first interface and the at least one additional first interface are elements of a framing interface.

189. The computer program product as recited in claim **160**, wherein the alternatives are displayed in a table.

190. The computer program product as recited in claim **160**, wherein the computer program product is operable such that animated icons are provided via the user interface.

191. The computer program product as recited in claim **160**, further comprising computer for negotiating a delivery agreement.

192. The computer program product as recited in claim **6**, wherein the one or more attributes includes an administrative cost.

193. The computer program product as recited in claim **6**, wherein the computer program product is operable such that dynamic web pages are provided via the user interface.

194. The computer program product as recited in claim **160**, further comprising computer code for hierarchical expansion of the plurality of the attributes.

195. The computer program product as recited in claim **160**, wherein the input is received by allowing the user to input the at least one price.

196. The computer program product as recited in claim **160**, wherein the at least one price includes a range of prices.

197. The computer program product as recited in claim **160**, wherein the logic is associated with a plurality of modules.

198. The computer program product as recited in claim **197**, wherein the plurality of modules include universal modules.

199. The computer program product as recited in claim **197**, wherein the plurality of modules include at least one of a framing module, an alternatives module, an analysis module, and a connection module.

200. The computer program product as recited in claim **197**, wherein the plurality of modules include a framing module.

201. The computer program product as recited in claim **197**, wherein the plurality of modules include an alternatives module.

202. The computer program product as recited in claim **197**, wherein the plurality of modules include an analysis module.

203. The computer program product as recited in claim 197, wherein the plurality of modules include a framing module, an alternatives module, an analysis module, and a connection module.

204. The computer program product as recited in claim 6, wherein the one or more attributes includes a plurality of the attributes, and the computer program product further comprising:

computer code for providing at least one first interface that allows the receiving entity to enter a boundary condition associated with the decision-making, wherein the boundary condition is capable of being modified and involves price;

computer code for providing at least one additional first interface that allows the user to provide input indicative of aspects associated with the decision-making, wherein the aspects are capable of being modified;

computer code for providing at least one second interface that displays a plurality of alternatives that include alternate choices, based, at least in part, on the boundary condition and the aspects;

computer code for providing at least one additional second interface that displays the plurality of alternatives, as modified by user input;

computer code for providing at least one third interface that displays relative value associated with each of the alternatives, and allows the user to make modifications; and

computer code for receiving third information that includes public information, wherein the third information is received from a source separate from the receiving entity and the supplying business, and relates to a value of at least one aspect of the one or more products or services, for identifying a retrospective value creation for a plurality of customers, wherein the computer program product is operable such that the process that is related to decision-making is capable of being executed based on the first information, the second information, and the third information, such that the at least one third interface includes content that is a function of the first information, the second information, and the third information;

wherein the computer program product is operable to provide an ability to allow different people input data into a set of displays at different times, and from different places, in order to support the decision-making;

wherein the at least one first interface, the at least one additional first interface, the at least one second interface, the at least one additional second interface, and the at least one third interface, each includes at least one web page; and

wherein the at least one additional first interface includes content which is a function of input provided using the at least one first interface; and the at least one additional second interface includes content which is a function of input provided using the at least one second interface.

205. The computer program product as recited in claim 6, wherein the one or more attributes includes a plurality of the attributes, and the computer program product further comprising:

computer code for providing at least one first interface that allows the receiving entity to indicate at least one price associated with the decision-making, wherein the at least one price is capable of being modified;

computer code for providing at least one additional first interface that allows the user to input aspects associated with the decision-making, wherein the aspects are capable of being modified;

computer code for providing at least one second interface that displays a plurality of alternatives that include alternate choices, based, at least in part, on the at least one price and the aspects;

computer code for providing at least one additional second interface that displays the plurality of alternatives, as modified by user input;

computer code for providing at least one third interface that displays value associated with each of the alternatives, and allows the user to make modifications; and

computer code for receiving third information that includes public information, wherein the third information is received from a source separate from the receiving entity and the supplying business, and relates to a value of at least one aspect of the one or more products or services and measures a retrospective value creation for a plurality of customers, wherein the computer program product is operable such that the process that is related to decision-making is capable of being executed based on the first information, the second information, and the third information;

wherein the computer program product is operable to provide an ability to allow different people input data into at least one display at different times, and from different places, in order to support the decision-making; and

wherein the at least one first interface, the at least one additional first interface, the at least one second interface, and the at least one additional second interface each includes web pages.

206. The computer program product as recited in claim 205, wherein the computer program product is operable such that the third information is received from the receiving entity.

207. The computer program product as recited in claim 205, wherein the at least one aspect of the one or more products or services includes the one or more attributes.

208. The computer program product as recited in claim 205, wherein the third information relates to the one or more attributes.

209. The computer program product as recited in claim 205, wherein the third information relates to a value of the one or more attributes.

210. The computer program product as recited in claim 205, wherein the computer program product is operable such that the at least one third interface includes content that is a function of the first information, the second information, and the third information.

211. The computer program product as recited in claim 205, wherein the computer program product is operable such that the third information is utilized in association with a collaborative decision platform.

212. The computer program product as recited in claim 211, wherein the collaborative decision platform includes a plurality of modules including a framing module, an alternatives module, an analysis module, and a connection module.

213. The computer program product as recited in claim 205, wherein the computer program product is operable such that the alternatives are displayed in a table.

214. The computer program product as recited in claim 213, wherein the computer program product is operable such that at least one aspect of input from the user via the least one first interface drives a column heading in the table with the alternatives for the column heading arranged therebeneath.

215. The computer program product as recited in claim 205, further comprising computer code for modifying the alternatives.

216. The computer program product as recited in claim 205, further comprising computer code for selecting the alternatives.

217. The computer program product as recited in claim 205, wherein the at least one third interface is an element of an analysis interface.

218. The computer program product as recited in claim 205, wherein the computer program product is operable such that the at least one third interface allows the user to modify a range of data.

219. The computer program product as recited in claim 205, further comprising computer code for providing at least one additional third interface that provides a decision sensitivity display.

220. The computer program product as recited in claim 219, wherein the decision sensitivity display includes a decision sensitivity table.

221. The computer program product as recited in claim 219, wherein the decision sensitivity display includes a decision sensitivity chart.

222. The computer program product as recited in claim 219, wherein the computer program product is operable such that the decision sensitivity display shows at least one value associated with a first choice and at least one value associated with a second choice.

223. The computer program product as recited in claim 219, wherein the computer program product is operable such that the decision sensitivity display compares at least one value associated with a choice.

224. The computer program product as recited in claim 219, wherein the computer program product is operable such that the decision sensitivity display identifies sources of value.

225. The computer program product as recited in claim 219, wherein the computer program product is operable such that the decision sensitivity display identifies sources of value for each of a plurality of choices.

226. The computer program product as recited in claim 219, wherein the computer program product is operable such that the decision sensitivity display identifies at least one aspect associated with at least one choice.

227. The computer program product as recited in claim 226, wherein the at least one aspect is associated with value.

228. The computer program product as recited in claim 226, wherein the at least one choice is pre-defined.

229. The computer program product as recited in claim 226, wherein the at least one choice is user-defined.

230. The computer program product as recited in claim 226, wherein the computer program product is operable such that the at least one choice is capable of being provided a choice name.

231. The computer program product as recited in claim 226, wherein the computer program product is operable such that the at least one choice is capable of being defined by a plurality of selections.

232. The computer program product as recited in claim 226, wherein the computer program product is operable such that the at least one choice is capable of being defined by an amount of a purchase.

233. The computer program product as recited in claim 226, wherein the computer program product is operable such that the at least one choice is capable of being defined by a selection of a plurality of alternatives.

234. The computer program product as recited in claim 233, wherein the computer program product is operable such that the at least one choice is capable of being modified.

235. The computer program product as recited in claim 205, and further comprising computer code for providing at least one fourth interface that provides a potential feasible hybrid theme.

236. The computer program product as recited in claim 235, wherein the potential feasible hybrid theme includes a hybrid strategy.

237. The computer program product as recited in claim 236, wherein the computer program product is operable such that the hybrid strategy combines a plurality of alternative choices.

238. The computer program product as recited in claim 237, wherein at least one of the plurality alternative choices is pre-defined.

239. The computer program product as recited in claim 235, wherein the potential feasible hybrid theme is associated with at least one choice.

240. The computer program product as recited in claim 239, wherein the at least one choice is pre-defined.

241. The computer program product as recited in claim 239, wherein the at least one choice is user-defined.

242. The computer program product as recited in claim 241, wherein the computer program product is operable such that the at least one choice is capable of being provided a name.

243. The computer program product as recited in claim 241, wherein the computer program product is operable such that the at least one choice is capable of being defined by a selection of a plurality of alternatives.

244. The computer program product as recited in claim 241, wherein the computer program product is operable such that the at least one choice is capable of being modified.

245. A computer program product embodied on a tangible computer readable medium, comprising:

computer code for facilitating decision-making, the computer code for facilitating associated with an application which is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

computer code for retrieving first information from a memory;

computer code for receiving second information from a user interface; and

computer code for causing generation of at least one display based on the first information and the second information, the display facilitating the decision-making by including a decision sensitivity display embedded in a web page constructed utilizing a hypertext markup language;

wherein the application is capable of being executed using a system capable of: (i) retrieving stored information; (ii) receiving user information; and (iii) processing the stored information and the user information for generating output of the processing; where one or more of (i)-(iii) is carried out utilizing, at least in part, one or more modules that is capable of being used to apply the one or more of (i)-(iii) differently.

246. The computer program product as recited in claim 205, further comprising computer code for providing at least one additional third interface content of which is a function of input provided using the at least one third interface.

247. The computer program product as recited in claim 205, wherein the computer program product is operable such that the at least one first interface allows the user to form a plurality of boundary conditions.

248. The computer program product as recited in claim 205, wherein the at least one first interface and the at least one additional first interface are elements of a framing interface.

249. The computer program product as recited in claim 205, wherein the computer program product is operable such that the alternatives are displayed in a table.

250. The computer program product as recited in claim 205, further comprising computer code for negotiating a delivery agreement.

251. The computer program product as recited in claim 205, wherein the computer program product is operable such that dynamic web pages are provided via the user interface.

252. The computer program product as recited in claim 205, further comprising computer code for hierarchical expansion of the plurality of the attributes.

253. The computer program product as recited in claim 6, wherein the system includes software.

254. The computer program product as recited in claim 6, wherein the system includes hardware.

255. The computer program product as recited in claim 6, wherein the receiving entity includes a business entity.

256. The computer program product as recited in claim 6, wherein the process that is related to decision-making includes a process that supports decision-making.

257. The computer program product as recited in claim 6, wherein the computer program product is operable such that the second information regarding one or more products or services is received in association with a single supplying business.

258. The computer program product as recited in claim 6, wherein the computer program product is operable such that the second information regarding one or more products or services is received from a plurality of supplying businesses.

259. The computer program product as recited in claim 258, wherein the computer program product is operable such that the first information and the second information are received at and processed by an intermediate entity that is separate from the supplying businesses and the receiving entity.

260. The computer program product as recited in claim 6, wherein the computer program product is operable such that real-time decision-making is supported.

261. The computer program product as recited in claim 6, wherein the computer program product is capable of delivering presentation information to the user in accordance with the logic utilizing the user interface.

262. The computer program product as recited in claim 6, wherein the process relates to customer relationship management.

263. The computer program product as recited in claim 6, and further comprising computer code for negotiating a purchase agreement.

264. The computer program product as recited in claim 6, and further comprising computer code for negotiating a delivery agreement.

265. The computer program product as recited in claim 6, wherein the first information is received from the receiving entity.

266. The computer program product as recited in claim 6, wherein at least a portion of the computer program product includes a plurality of objects associated with an object-oriented programming language.

267. The computer program product as recited in claim 266, wherein the objects include at least one object that is capable of being used to initialize the process.

268. The computer program product as recited in claim 266, wherein the at least one of the plurality of objects is capable of providing a framing functionality.

269. The computer program product as recited in claim 266, wherein the objects include at least one object that is capable of being used to develop decision related alternatives in the process.

270. The computer program product as recited in claim 266, wherein the at least one of the plurality of objects is capable of providing an alternatives functionality.

271. The computer program product as recited in claim 266, wherein the objects include at least one object that is capable of being used to analyze alternatives in the process.

272. The computer program product as recited in claim 266, wherein the at least one of the plurality of objects is capable of providing an analysis functionality.

273. The computer program product as recited in claim 266, wherein the objects include at least one object that is capable of being used to process decision-related alternatives to develop a solution.

274. The computer program product as recited in claim 266, wherein the at least one of the plurality of objects is capable of providing a connection functionality.

275. The computer program product as recited in claim 266, wherein the objects include:

a first object that is capable of being used to initialize the process,

a second object that is capable of being used to develop decision-related alternatives in the process,

a third object that is capable of being used to analyze the decision-related alternatives in the process, and

a fourth object that is capable of being used to process the decision-related alternatives to develop a solution.

276. The computer program product as recited in claim 266, wherein the objects communicate utilizing encapsulation that enforces data abstraction.

277. The computer program product as recited in claim 266, wherein the objects are implemented utilizing class libraries.

278. The computer program product as recited in claim 277, wherein the class libraries are capable of being utilized for generating the user interface.

279. The computer program product as recited in claim 266, wherein the objects are implemented utilizing subclassing and inheritance to extend or modify objects by deriving additional objects from classes.

280. A computer program product embodied on a tangible computer readable medium, comprising:

collaborative decision computer code for decision-making, the collaborative decision computer code for decision-making including an application which is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

computer code for retrieving first information from a memory;

computer code for receiving second information from a user interface;

computer code for generating at least one display based on a computation involving the first information and the second information, the display facilitating the decision-making by being capable of viewing utilizing a web browser and including at least one of a tornado diagram, a decision sensitivity display or a decision hierarchy display; and

wherein the computer program product includes computer code having a plurality of objects associated with an object-oriented programming language.

281. The computer program product as recited in claim **280**, wherein the decision-making involves a policy, and the decision sensitivity display shows an impact of at least one of a plurality of variables on results of the policy.

282. The computer program product as recited in claim **280**, wherein the objects include at least one object that is capable of being used to initialize the computation.

283. The computer program product as recited in claim **280**, wherein the at least one of the plurality of objects is capable of providing a framing functionality.

284. The computer program product as recited in claim **280**, wherein the objects include at least one object that is capable of being used to develop decision related alternatives.

285. The computer program product as recited in claim **280**, wherein the at least one of the plurality of objects is capable of providing an alternatives functionality.

286. The computer program product as recited in claim **280**, wherein the objects include at least one object that is capable of being used to analyze alternatives.

287. The computer program product as recited in claim **280**, wherein the at least one of the plurality of objects is capable of providing an analysis functionality.

288. The computer program product as recited in claim **280**, wherein the objects include:

a first object that is capable of being used to develop decision-related alternatives,

a second object that is capable of being used to analyze the decision-related alternatives, and

a third object that is capable of being used to process the decision-related alternatives to develop a solution.

289. The computer program product as recited in claim **280**, wherein the objects communicate utilizing encapsulation that enforces data abstraction.

290. The computer program product as recited in claim **280**, wherein the objects are implemented utilizing class libraries.

291. The computer program product as recited in claim **290**, wherein the class libraries are capable of being utilized for generating the display.

292. The computer program product as recited in claim **280**, wherein the objects are implemented utilizing subclassing and inheritance to extend or modify objects by deriving additional objects from classes.

293. The computer program product as recited in claim **280**, wherein the at least one display is implemented utilizing at least one dynamic web page.

294. The computer program product as recited in claim **280**, wherein the decision-making is performed in real-time.

295. The computer program product as recited in claim **280**, wherein the decision-making includes real-time decision-making.

296. The computer program product as recited in claim **280**, wherein the application is capable of being executed using a collaborative decision-making platform capable of: (i) retrieving stored information; (ii) receiving user information; and (iii) processing the stored information and the user information for generating output of the processing; where one or more of (i)-(iii) is carried out utilizing, at least in part, one or more modules capable of applying the one or more of (i)-(iii) differently.

297. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing a platform capable of supporting collaborative decision-making, and the display facilitates the collaborative decision-making by including the decision sensitivity display.

298. The computer program product as recited in claim **297**, wherein the platform is web-enabled.

299. The computer program product as recited in claim **298**, wherein the network is model-driven.

300. The computer program product as recited in claim **297**, wherein the computer program product is industry-independent.

301. The computer program product as recited in claim **297**, wherein the decision-making relates to which products or services are suitable for an entity.

302. The computer program product as recited in claim **297**, wherein the decision-making relates to customer relationship management.

303. The computer program product as recited in claim **302**, wherein the customer includes a business.

304. The computer program product as recited in claim **297**, further comprising computer code for identifying a strategy.

305. The computer program product as recited in claim **297**, further comprising computer code for assessing uncertainties for analysis purposes.

306. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing platform means for supporting the decision-making in a collaborative manner.

307. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing means for collaborative decision-making.

308. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing a platform including module means for supporting collaborative decision-making.

309. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing a collaborative platform including at least one module for supporting the decision-making in a manner that is, at least in part, universal when applied for different purposes.

310. The computer program product as recited in claim **280**, wherein the decision-making includes collaborative decision-making that is facilitated utilizing a platform including at least one module for supporting the decision-making in a manner that is, at least in part, universal when applied differently by the platform.

311. The computer program product as recited in claim **297**, wherein the decision sensitivity display shows at least one value associated with a first strategy and at least one value associated with a second strategy.

312. The computer program product as recited in claim **297**, wherein the decision sensitivity display compares at least one value associated with a strategy.

313. The computer program product as recited in claim **297**, wherein the decision sensitivity display identifies sources of value.

314. The computer program product as recited in claim **297**, wherein the decision sensitivity display identifies sources of value for each of a plurality of strategies.

315. The computer program product as recited in claim **297**, wherein the decision sensitivity display identifies at least one aspect associated with at least one strategy.

316. The computer program product as recited in claim **315**, wherein the at least one aspect is associated with value.

317. The computer program product as recited in claim **315**, wherein the at least one strategy is pre-defined.

318. The computer program product as recited in claim **315**, wherein the at least one strategy is user-defined.

319. The computer program product as recited in claim 318, wherein the at least one strategy is capable of being provided a strategy name.

320. The computer program product as recited in claim 318, wherein the at least one strategy is capable of being defined by a plurality of selections.

321. The computer program product as recited in claim 318, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

322. The computer program product as recited in claim 318, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

323. The computer program product as recited in claim 318, wherein the at least one strategy is capable of being modified.

324. The computer program product as recited in claim 323, wherein a range associated with the at least one strategy is capable of being modified.

325. The computer program product as recited in claim 315, wherein the at least one strategy is a stock purchase strategy.

326. The computer program product as recited in claim 297, wherein the decision sensitivity display identifies at least one aspect associated with a plurality of strategies.

327. The computer program product as recited in claim 297, wherein the application is the financial-related application.

328. The computer program product as recited in claim 327, further comprising code for displaying a stock ticker.

329. The computer program product as recited in claim 297, wherein the decision sensitivity display shows at least one profit-related value associated with a first strategy and at least one profit-related value associated with a second strategy.

330. The computer program product as recited in claim 280, wherein the decision-making is facilitated utilizing a platform capable of supporting collaborative decision-making, and the display facilitates the collaborative decision-making by including the decision hierarchy display.

331. The computer program product as recited in claim 330, wherein the decision hierarchy display identifies decisions that are within a scope of a decision making process.

332. The computer program product as recited in claim 330, wherein the decision hierarchy display identifies at least one decision associated with at least one strategy.

333. The computer program product as recited in claim 332, wherein the at least one strategy is pre-defined.

334. The computer program product as recited in claim 332, wherein the at least one strategy is user-defined.

335. The computer program product as recited in claim 334, wherein the at least one strategy is capable of being provided a strategy name.

336. The computer program product as recited in claim 334, wherein the at least one strategy is capable of being defined by a plurality of selections.

337. The computer program product as recited in claim 334, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

338. The computer program product as recited in claim 334, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

339. The computer program product as recited in claim 334, wherein the at least one strategy is capable of being modified.

340. The computer program product as recited in claim 339, wherein a range associated with the at least one strategy is capable of being modified.

341. The computer program product as recited in claim 332, wherein the at least one strategy is a stock purchase strategy.

342. The computer program product as recited in claim 330, wherein the decision hierarchy display includes at least one of policies, decisions, or tactics.

343. The computer program product as recited in claim 330, wherein the decision hierarchy display includes at least two of: policies, decisions, and tactics.

344. The computer program product as recited in claim 330, wherein the decision hierarchy display includes: policies, decisions, and tactics.

345. The computer program product as recited in claim 280, wherein the computer code for generating includes computer code for generating a potential hybrid theme.

346. The computer program product as recited in claim 297, wherein the computer code for generating includes computer code for generating a potential feasible hybrid theme.

347. The computer program product as recited in claim 346, wherein the computer code for generating includes computer code for generating a plurality of the potential feasible hybrid themes.

348. The computer program product as recited in claim 346, wherein the potential feasible hybrid theme includes a hybrid strategy.

349. The computer program product as recited in claim 348, wherein the hybrid strategy combines a plurality of alternative strategies.

350. The computer program product as recited in claim 349, wherein at least one of the plurality alternative strategies is pre-defined.

351. The computer program product as recited in claim 346, wherein the potential feasible hybrid theme is associated with at least one strategy.

352. The computer program product as recited in claim 351, wherein the at least one strategy is pre-defined.

353. The computer program product as recited in claim 351, wherein the at least one strategy is user-defined.

354. The computer program product as recited in claim 353, wherein the at least one strategy is capable of being provided a strategy name.

355. The computer program product as recited in claim 353, wherein the at least one strategy is capable of being defined by a plurality of selections.

356. The computer program product as recited in claim 353, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

357. The computer program product as recited in claim 353, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

358. The computer program product as recited in claim 353, wherein the at least one strategy is capable of being modified.

359. The computer program product as recited in claim 358, wherein a range associated with the at least one strategy is capable of being modified.

360. The computer program product as recited in claim 351, wherein the at least one strategy is a stock purchase strategy.

361. The computer program product as recited in claim 297, wherein the decision sensitivity display is capable of showing at least one value associated with a first strategy and at least one value associated with a second strategy; the at least one first strategy including a pre-defined strategy and the at least one second strategy including a user-defined strategy;

the second strategy capable of being: provided a strategy name by a user, defined by a selection of a plurality of alternatives, and further modified.

362. The computer program product as recited in claim **361**, wherein the computer code for generating includes computer code for generating a decision display, the decision display identifying at least one decision associated with the second strategy.

363. The computer program product as recited in claim **362**, wherein the decision display includes the decision hierarchy display.

364. The computer program product as recited in claim **297**, wherein the application is the real estate-related application.

365. The computer program product as recited in claim **297**, wherein the application is the medical-related application.

366. The computer program product as recited in claim **297**, wherein the application is the product supply-related application.

367. The computer program product as recited in claim **297**, wherein the application is the service supply-related application.

368. The computer program product as recited in claim **297**, wherein the application is the financial-related application.

369. The computer program product as recited in claim **297**, further comprising computer code for allowing a user to modify the decision sensitivity display.

370. The computer program product as recited in claim **297**, wherein the decision-making is related to a business-to-business transaction.

371. The computer program product as recited in claim **361**, wherein the decision sensitivity display is capable of showing the at least one value associated with the first strategy simultaneously with the at least one value associated with the second strategy.

372. The computer program product as recited in claim **297**, wherein the application is the product supply-related application and the product supply-related application relates to marketing at least one product.

373. The computer program product as recited in claim **297**, wherein the application is the service supply-related application and the service supply-related application relates to marketing at least one service.

374. The computer program product as recited in claim **297**, wherein the application is the corporate-related application and the corporate-related application relates to marketing.

375. The computer program product as recited in claim **297**, wherein the memory includes at least one database.

376. The computer program product as recited in claim **297**, wherein the memory includes at least one decision-relevant database.

377. The computer program product as recited in claim **297**, wherein the memory includes a plurality of databases.

378. The computer program product as recited in claim **297**, wherein the memory includes a plurality of databases coupled via at least one network.

379. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing a platform capable of supporting collaborative decision-making, and the display facilitates the collaborative decision-making by including the decision hierarchy display, and the decision hierarchy display includes a table.

380. The computer program product as recited in claim **379**, wherein each decision in the decision hierarchy display is represented by a column heading in the table.

381. The computer program product as recited in claim **380**, wherein alternatives for each decision are arranged beneath the column heading.

382. The computer program product as recited in claim **280**, wherein the decision-making is facilitated utilizing a platform capable of supporting collaborative decision-making, and the display facilitates the collaborative decision-making by including the decision hierarchy display, and content of the decision hierarchy display is based on the second information.

383. The computer program product as recited in claim **297**, wherein the second information includes information relating to controllables.

384. The computer program product as recited in claim **297**, wherein the second information includes information relating to uncertainties.

385. The computer program product as recited in claim **305**, wherein the uncertainties include independent uncertainties.

386. The computer program product as recited in claim **305**, wherein the uncertainties include uncertainties dependent on decisions.

387. The computer program product as recited in claim **305**, wherein the uncertainties include at least one of a product sales volume change, a margin change, a cost change, or a margin change.

388. The computer program product as recited in claim **305**, wherein include at least two of a product sales volume change, a margin change, a cost change, and a margin change.

389. The computer program product as recited in claim **305**, wherein include at least three of a product sales volume change, a margin change, a cost change, and a margin change.

390. The computer program product as recited in claim **280**, wherein the computer code for generating includes computer code for generating the decision hierarchy display utilizing a collaborative decision platform, the decision hierarchy display including information on target customers.

391. The computer program product as recited in claim **280**, wherein the computer code for generating includes computer code for generating the decision hierarchy display utilizing a collaborative decision platform, the decision hierarchy display including information on at least one channel.

392. The computer program product as recited in claim **280**, wherein the computer code for generating includes computer code for generating the decision hierarchy display utilizing a collaborative decision platform, the decision hierarchy display including information on a salesforce channel.

393. The computer program product as recited in claim **280**, wherein the computer code for generating includes computer code for generating the decision hierarchy display utilizing a collaborative decision platform, the decision hierarchy display including information on a service channel.

394. The computer program product as recited in claim **297**, wherein the second information includes information relating to information sources.

395. The computer program product as recited in claim **297**, wherein the second information includes information relating to decision alternatives.

396. The computer program product as recited in claim **297**, wherein the second information includes information relating to sources of value.

397. The computer program product as recited in claim **297**, wherein the computer program product utilizes a structural relationship of decisions.

398. The computer program product as recited in claim 297, wherein the computer program product utilizes input from a spreadsheet.

399. The computer program product as recited in claim 297, wherein the computer program product utilizes at least one equation relating to at least one decision.

400. The computer program product as recited in claim 297, wherein the computer program product utilizes a plurality of equations relating to a plurality of decisions.

401. The computer program product as recited in claim 297, wherein the computer program product utilizes structural relationship of decisions, values, and uncertainties.

402. The computer program product as recited in claim 297, wherein the computer code for generating includes computer code for generating the decision hierarchy display utilizing a collaborative decision platform, the decision hierarchy display including a bar graph.

403. The computer program product as recited in claim 297, wherein the computer program product is capable of supporting an asynchronous decision-making process.

404. The computer program product as recited in claim 297, wherein the application utilizes policies that form boundary conditions for a decision.

405. The computer program product as recited in claim 297, wherein the application utilizes values that are important to a decision and uncertainties that potentially impact the values.

406. The computer program product as recited in claim 297, wherein the application interfaces the platform.

407. The computer program product as recited in claim 406, wherein the platform includes at least a portion of the computer code for the retrieving, the receiving, and the causing.

408. The computer program product as recited in claim 406, wherein the application is separate from the platform.

409. The computer program product as recited in claim 297, wherein the computer program product includes computer code having a plurality of universal modules associated with the object-oriented programming language.

410. The computer program product as recited in claim 305, wherein the computer program product is operable such that a range associated with the at least one strategy is capable of being modified.

411. The computer program product as recited in claim 245, wherein the facilitation is performed in real-time utilizing the one or more modules.

412. The computer program product as recited in claim 245, wherein the decision-making includes real-time decision-making.

413. The computer program product as recited in claim 245, wherein the first information is retrieved via a network.

414. The computer program product as recited in claim 413, wherein the network is the Internet.

415. The computer program product as recited in claim 245, wherein the second information is received via a network.

416. The computer program product as recited in claim 415, wherein the network is the Internet.

417. The computer program product as recited in claim 245, wherein the computer program product is industry-independent.

418. The computer program product as recited in claim 245, wherein the decision-making relates to which products or services are suitable for an entity.

419. The computer program product as recited in claim 245, wherein the decision-making relates to customer relationship management.

420. The computer program product as recited in claim 419, wherein the customer includes a business.

421. The computer program product as recited in claim 245, further comprising computer code for identifying a strategy.

422. The computer program product as recited in claim 245, further comprising computer code for assessing uncertainties for analysis purposes.

423. The computer program product as recited in claim 245, wherein the computer code for generating includes computer code for generating a potential feasible hybrid theme.

424. The computer program product as recited in claim 245, wherein the computer code for generating includes computer code for generating a decision hierarchy display.

425. The computer program product as recited in claim 245, wherein the computer code for generating includes computer code for generating the decision sensitivity display utilizing the one or more modules.

426. The computer program product as recited in claim 425, wherein the decision sensitivity display includes a decision sensitivity table.

427. The computer program product as recited in claim 425, wherein the decision sensitivity display includes a decision sensitivity chart.

428. The computer program product as recited in claim 425, wherein the decision sensitivity display shows at least one value associated with a first strategy and at least one value associated with a second strategy.

429. The computer program product as recited in claim 425, wherein the decision sensitivity display compares at least one value associated with a strategy.

430. The computer program product as recited in claim 425, wherein the decision sensitivity display identifies sources of value.

431. The computer program product as recited in claim 425, wherein the decision sensitivity display identifies sources of value for each of a plurality of strategies.

432. The computer program product as recited in claim 425, wherein the decision sensitivity display identifies at least one aspect associated with at least one strategy.

433. The computer program product as recited in claim 432, wherein the at least one aspect is associated with value.

434. The computer program product as recited in claim 432, wherein the at least one strategy is pre-defined.

435. The computer program product as recited in claim 432, wherein the at least one strategy is user-defined.

436. The computer program product as recited in claim 435, wherein the at least one strategy is capable of being provided a strategy name.

437. The computer program product as recited in claim 435, wherein the at least one strategy is capable of being defined by a plurality of selections.

438. The computer program product as recited in claim 435, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

439. The computer program product as recited in claim 435, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

440. The computer program product as recited in claim 435, wherein the at least one strategy is capable of being modified.

441. The computer program product as recited in claim 440, wherein a range associated with the at least one strategy is capable of being modified.

442. The computer program product as recited in claim 432, wherein the at least one strategy is a stock purchase strategy.

443. The computer program product as recited in claim 425, wherein the decision sensitivity display identifies at least one aspect associated with a plurality of strategies.

444. The computer program product as recited in claim 425, wherein the application is the financial-related application.

445. The computer program product as recited in claim 444, further comprising code for displaying a stock ticker.

446. The computer program product as recited in claim 425, wherein the decision sensitivity display shows at least one profit-related value associated with a first strategy and at least one profit-related value associated with a second strategy.

447. The computer program product as recited in claim 245, wherein the computer code for generating includes computer code for generating a decision hierarchy display utilizing the one or more modules.

448. The computer program product as recited in claim 447, wherein the decision hierarchy display identifies decisions that are within a scope of a decision making process.

449. The computer program product as recited in claim 447, wherein the decision hierarchy display identifies at least one decision associated with at least one strategy.

450. The computer program product as recited in claim 449, wherein the at least one strategy is pre-defined.

451. The computer program product as recited in claim 449, wherein the at least one strategy is user-defined.

452. The computer program product as recited in claim 451, wherein the at least one strategy is capable of being provided a strategy name.

453. The computer program product as recited in claim 451, wherein the at least one strategy is capable of being defined by a plurality of selections.

454. The computer program product as recited in claim 451, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

455. The computer program product as recited in claim 451, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

456. The computer program product as recited in claim 451, wherein the at least one strategy is capable of being modified.

457. The computer program product as recited in claim 456, wherein a range associated with the at least one strategy is capable of being modified.

458. The computer program product as recited in claim 449, wherein the at least one strategy is a stock purchase strategy.

459. The computer program product as recited in claim 447, wherein the decision hierarchy display includes at least one of policies, decisions, or tactics.

460. The computer program product as recited in claim 447, wherein the decision hierarchy display includes at least two of: policies, decisions, and tactics.

461. The computer program product as recited in claim 447, wherein the decision hierarchy display includes: policies, decisions, and tactics.

462. The computer program product as recited in claim 425, wherein the computer code for generating includes computer code for generating a potential hybrid theme.

463. The computer program product as recited in claim 245, wherein the computer code for generating includes computer code for generating a potential feasible hybrid theme utilizing the one or more modules.

464. The computer program product as recited in claim 463, wherein the computer code for generating includes computer code for generating a plurality of the potential feasible hybrid themes.

465. The computer program product as recited in claim 463, wherein the potential feasible hybrid theme includes a hybrid strategy.

466. The computer program product as recited in claim 465, wherein the hybrid strategy combines a plurality of alternative strategies.

467. The computer program product as recited in claim 466, wherein at least one of the plurality alternative strategies is pre-defined.

468. The computer program product as recited in claim 463, wherein the potential feasible hybrid theme is associated with at least one strategy.

469. The computer program product as recited in claim 468, wherein the at least one strategy is pre-defined.

470. The computer program product as recited in claim 468, wherein the at least one strategy is user-defined.

471. The computer program product as recited in claim 470, wherein the at least one strategy is capable of being provided a strategy name.

472. The computer program product as recited in claim 470, wherein the at least one strategy is capable of being defined by a plurality of selections.

473. The computer program product as recited in claim 470, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

474. The computer program product as recited in claim 470, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

475. The computer program product as recited in claim 470, wherein the at least one strategy is capable of being modified.

476. The computer program product as recited in claim 475, wherein a range associated with the at least one strategy is capable of being modified.

477. The computer program product as recited in claim 468, wherein the at least one strategy is a stock purchase strategy.

478. The computer program product as recited in claim 245, wherein the decision sensitivity display is capable of showing at least one value associated with a first strategy and at least one value associated with a second strategy; the at least one first strategy including a pre-defined financial-related strategy and the at least one second strategy including a user-defined financial-related strategy; the second strategy capable of being: provided a strategy name by a user, defined by a selection of a plurality of alternatives, and further modified.

479. The computer program product as recited in claim 478, wherein the computer code for generating includes computer code for generating a decision display including at least one of policies, decisions, or tactics, the decision display identifying the at least one of policies, decisions, or tactics associated with the second strategy.

480. The computer program product as recited in claim 478, wherein the computer code for generating includes computer code for generating a decision display including at least two of policies, decisions, and tactics, the decision display identifying the at least two of policies, decisions, and tactics associated with the second strategy.

481. The computer program product as recited in claim 478, wherein the computer code for generating includes computer code for generating a decision display including poli-

cies, decisions, and tactics, the decision display identifying the policies, decisions, and tactics associated with the second strategy.

482. The computer program product as recited in claim **245**, wherein the application is the medical-related application.

483. The computer program product as recited in claim **245**, wherein the application is the product supply-related application.

484. The computer program product as recited in claim **245**, wherein the application is the service supply-related application.

485. The computer program product as recited in claim **245**, wherein the application is the financial-related application.

486. The computer program product as recited in claim **245**, further comprising computer code for allowing a user to modify the decision sensitivity display.

487. The computer program product as recited in claim **245**, wherein the decision-making is related to a business-to-business transaction.

488. The computer program product as recited in claim **478**, wherein the decision sensitivity display is capable of showing the at least one value associated with the first strategy simultaneously with the at least one value associated with the second strategy.

489. The computer program product as recited in claim **245**, wherein the application is the product supply-related application and the product supply-related application relates to marketing at least one product.

490. The computer program product as recited in claim **245**, wherein the application is the service supply-related application and the service supply-related application relates to marketing at least one service.

491. The computer program product as recited in claim **245**, wherein the application is the corporate-related application and the corporate-related application relates to marketing.

492. The computer program product as recited in claim **245**, wherein the memory includes at least one database.

493. The computer program product as recited in claim **245**, wherein the memory includes at least one decision-relevant database.

494. The computer program product as recited in claim **245**, wherein the memory includes a plurality of databases.

495. The computer program product as recited in claim **245**, wherein the memory includes a plurality of databases coupled via at least one network.

496. The computer program product as recited in claim **245**, wherein the computer code for generating includes computer code for generating a decision display including at least one of policies, decisions, or tactics; and the decision display includes a table.

497. The computer program product as recited in claim **496**, wherein the at least one of policies, decisions, or tactics in the decision display is represented by a column heading in the table.

498. The computer program product as recited in claim **497**, wherein alternatives for the at least one of policies, decisions, or tactics are arranged beneath the column heading.

499. The computer program product as recited in claim **245**, wherein the computer code for generating includes computer code for generating a decision display including at least one of policies, decisions, or tactics, and content of the decision display is based on the second information.

500. The computer program product as recited in claim **499**, wherein the second information includes information relating to controllables.

501. The computer program product as recited in claim **499**, wherein the second information includes information relating to uncertainties.

502. The computer program product as recited in claim **501**, wherein the uncertainties include independent uncertainties.

503. The computer program product as recited in claim **501**, wherein the uncertainties include uncertainties dependent on decisions.

504. The computer program product as recited in claim **501**, wherein the uncertainties include at least one of a product sales volume change, a margin change, a cost change, or a margin change.

505. The computer program product as recited in claim **501**, wherein include at least two of a product sales volume change, a margin change, a cost change, and a margin change.

506. The computer program product as recited in claim **501**, wherein include at least three of a product sales volume change, a margin change, a cost change, and a margin change.

507. The computer program product as recited in claim **245**, further comprising computer code for generating a decision display including at least one of policies, decisions, or tactics, the decision display including information on target customers.

508. The computer program product as recited in claim **245**, further comprising computer code for generating a decision display including at least one of policies, decisions, or tactics, the decision display including information on at least one channel.

509. The computer program product as recited in claim **245**, further comprising computer code for generating a decision display including at least one of policies, decisions, or tactics, the decision display including information on a sales-force channel.

510. The computer program product as recited in claim **245**, further comprising computer code for generating a decision display including at least one of policies, decisions, or tactics, the decision display including information on a service channel.

511. The computer program product as recited in claim **245**, wherein the second information includes information relating to information sources.

512. The computer program product as recited in claim **245**, wherein the second information includes information relating to decision alternatives.

513. The computer program product as recited in claim **245**, wherein the second information includes information relating to sources of value.

514. The computer program product as recited in claim **245**, wherein the computer program product utilizes a structural relationship of decisions.

515. The computer program product as recited in claim **245**, wherein the computer program product utilizes input from a spreadsheet.

516. The computer program product as recited in claim **245**, wherein the computer program product utilizes at least one equation relating to at least one decision.

517. The computer program product as recited in claim **245**, wherein the computer program product utilizes a plurality of equations relating to a plurality of decisions.

518. The computer program product as recited in claim **245**, wherein the computer program product utilizes structural relationship of decisions, values, and uncertainties.

519. The computer program product as recited in claim 245, further comprising computer code for generating a decision display including at least one of policies, decisions, or tactics, in connection with the decision sensitivity display.

520. The computer program product as recited in claim 519, wherein the computer program product is capable of supporting an asynchronous decision-making process.

521. The computer program product as recited in claim 519, wherein the application utilizes policies that form boundary conditions for a decision.

522. The computer program product as recited in claim 519, wherein the application utilizes values that are important to a decision and uncertainties that potentially impact the values.

523. The computer program product as recited in claim 519, wherein the application interfaces a platform.

524. The computer program product as recited in claim 523, wherein the platform includes at least a portion of the computer code for the retrieving, the receiving, and the causing.

525. The computer program product as recited in claim 523, wherein the application is separate from the platform.

526. The computer program product as recited in claim 245, wherein the computer program product includes computer code having a plurality of objects associated with an object-oriented programming language, in connection with the one or modules.

527. The computer program product as recited in claim 526, wherein the facilitating the decision-making involves a policy, and the decision sensitivity display shows an impact of at least one of a plurality of variables on results of the policy.

528. The computer program product as recited in claim 526, wherein the objects include at least one object that is capable of being used to initialize a computation, in connection with the one or modules.

529. The computer program product as recited in claim 526, wherein the at least one of the plurality of objects is capable of providing a framing functionality, in connection with the one or modules.

530. The computer program product as recited in claim 526, wherein the objects include at least one object that is capable of being used to develop decision-related alternatives, in connection with the one or modules.

531. The computer program product as recited in claim 526, wherein the at least one of the plurality of objects is capable of providing an alternatives functionality, in connection with the one or modules.

532. The computer program product as recited in claim 526, wherein the objects include at least one object that is capable of being used to analyze alternatives, in connection with the one or modules.

533. The computer program product as recited in claim 526, wherein the at least one of the plurality of objects is capable of providing an analysis functionality, in connection with the one or modules.

534. The computer program product as recited in claim 526, wherein the objects include one or more of the following in connection with the one or modules:

a first object that is capable of being used to develop decision-related alternatives,

a second object that is capable of being used to analyze the decision-related alternatives, and

a third object that is capable of being used to process the decision-related alternatives to develop a solution.

535. The computer program product as recited in claim 526, wherein the objects communicate utilizing encapsulation that enforces data abstraction, in connection with the one or modules.

536. The computer program product as recited in claim 526, wherein the objects are implemented utilizing class libraries, in connection with the one or modules.

537. The computer program product as recited in claim 536, wherein the class libraries are capable of being utilized for generating the display, in connection with the one or modules.

538. The computer program product as recited in claim 526, wherein the objects are implemented utilizing subclassing and inheritance to extend or modify objects by deriving additional objects from classes, in connection with the one or modules.

539. The computer program product as recited in claim 526, wherein the at least one display is implemented utilizing at least one dynamic web page, in connection with the one or modules.

540. The computer program product as recited in claim 245, wherein the one or more of (i)-(iii) is carried out utilizing, at least in part, the one or more modules that is capable of being used to apply the one or more of (i)-(iii) to different business sectors.

541. The computer program product as recited in claim 245, wherein the computer program product is operable such that the one or more of (i)-(iii) is carried out utilizing, at least in part, the one or more modules that is capable of being used to apply the one or more of (i)-(iii) to different products.

542. The computer program product as recited in claim 245, wherein the one or more modules include a plurality of universal modules.

543. The computer program product as recited in claim 245, wherein the computer program product is operable such that all of (i)-(iii) are carried out utilizing, at least in part, the one or more modules that is capable of being used to apply all of (i)-(iii) differently.

544. The computer program product as recited in claim 245, wherein the computer program product is operable such that the one or more modules are re-usable.

545. The computer program product as recited in claim 245, wherein the computer program product is operable such that the one or more modules are accessible via a component integration architecture.

546. The computer program product as recited in claim 245, wherein the one or more modules include module means for applying similar functionality across multiple purposes.

547. The computer program product as recited in claim 245, wherein the display is accessible via a web browser.

548. The computer program product as recited in claim 245, wherein the one or more modules include a framing module, an alternatives module, an analysis module, and a connection module.

549. A computer program product embodied on a tangible computer readable medium, comprising:

computer code for facilitating decision-making, the computer code for facilitating associated with an application which is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

computer code for retrieving first information from a memory;

computer code for receiving second information from a user interface; and

computer code for causing generation of at least one display based on the first information and the second information, the display facilitating the decision-making by including at least one of a potential feasible hybrid theme, a decision sensitivity display, or a decision hierarchy display;

wherein the computer program product includes a collaborative decision platform capable of enabling real-time network-based collaboration between entities.

550. The computer program product as recited in claim **549**, wherein the facilitation is performed in real-time.

551. The computer program product as recited in claim **549**, wherein the decision-making includes real-time decision-making.

552. The computer program product as recited in claim **549**, wherein the first information is retrieved via a network.

553. The computer program product as recited in claim **549**, wherein the computer program product is operable such that the user interface receives different second information from different people at different times and from different places, such that contents of the at least one display is based on the second information from the different people.

554. The computer program product as recited in claim **549**, wherein the second information is received via a network.

555. The computer program product as recited in claim **549**, wherein the computer program product includes asynchronous computer code operable such that the user interface is capable of receiving the second information from different people at different times and from different places, such that contents of the at least one display is based on the second information from the different people; the asynchronous computer code further operable such that the user interface is capable of receiving modified second information from the different people, such that the contents of the at least one display is modified based on the modified second information from the different people.

556. The computer program product as recited in claim **555**, wherein the modified second information modifies a problem definition.

557. The computer program product as recited in claim **549**, wherein the decision-making relates to which products or services are suitable for an entity.

558. The computer program product as recited in claim **549**, wherein at least a portion of the computer code is carried out using modules capable of interfacing with different applications adapted for applying the modules differently.

559. The computer program product as recited in claim **549**, wherein at least a portion of the computer code is carried out using universal modules capable of interfacing with different applications adapted for applying the universal modules differently.

560. The computer program product as recited in claim **549**, further comprising computer code for identifying a strategy.

561. The computer program product as recited in claim **549**, further comprising computer code for assessing uncertainties for analysis purposes.

562. The computer program product as recited in claim **549**, wherein the computer code for generating includes computer code for generating at least two of: the potential feasible hybrid theme, the decision sensitivity display, and the decision hierarchy display.

563. The computer program product as recited in claim **549**, wherein the computer code for generating includes computer code for generating the potential feasible hybrid theme, the decision sensitivity display, and the decision hierarchy display.

564. The computer program product as recited in claim **549**, wherein the computer code for generating includes computer code for generating the decision sensitivity display.

565. The computer program product as recited in claim **564**, wherein the decision sensitivity display includes a decision sensitivity table.

566. The computer program product as recited in claim **564**, wherein the decision sensitivity display includes a decision sensitivity chart.

567. The computer program product as recited in claim **564**, wherein the decision sensitivity display shows at least one value associated with a first strategy and at least one value associated with a second strategy.

568. The computer program product as recited in claim **564**, wherein the decision sensitivity display compares at least one value associated with a strategy.

569. The computer program product as recited in claim **564**, wherein the decision sensitivity display identifies sources of value.

570. The computer program product as recited in claim **564**, wherein the decision sensitivity display identifies sources of value for each of a plurality of strategies.

571. The computer program product as recited in claim **564**, wherein the decision sensitivity display identifies at least one aspect associated with at least one strategy.

572. The computer program product as recited in claim **571**, wherein the at least one aspect is associated with value.

573. The computer program product as recited in claim **571**, wherein the at least one strategy is pre-defined.

574. The computer program product as recited in claim **571**, wherein the at least one strategy is user-defined.

575. The computer program product as recited in claim **574**, wherein the at least one strategy is capable of being provided a strategy name.

576. The computer program product as recited in claim **574**, wherein the at least one strategy is capable of being defined by a plurality of selections.

577. The computer program product as recited in claim **574**, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

578. The computer program product as recited in claim **574**, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

579. The computer program product as recited in claim **574**, wherein the at least one strategy is capable of being modified.

580. The computer program product as recited in claim **579**, wherein a range associated with the at least one strategy is capable of being modified.

581. The computer program product as recited in claim **571**, wherein the at least one strategy is a stock purchase strategy.

582. The computer program product as recited in claim **564**, wherein the decision sensitivity display identifies at least one aspect associated with a plurality of strategies.

583. The computer program product as recited in claim **564**, wherein the application is the financial-related application.

584. The computer program product as recited in claim **583**, further comprising code for displaying a stock ticker.

585. The computer program product as recited in claim **564**, wherein the decision sensitivity display shows at least

one profit-related value associated with a first strategy and at least one profit-related value associated with a second strategy.

586. The computer program product as recited in claim **549**, wherein the computer code for generating includes computer code for generating the decision hierarchy display.

587. The computer program product as recited in claim **586**, wherein the decision hierarchy display identifies decisions that are within a scope of a decision making process.

588. The computer program product as recited in claim **586**, wherein the decision hierarchy display identifies at least one decision associated with at least one strategy.

589. The computer program product as recited in claim **588**, wherein the at least one strategy is pre-defined.

590. The computer program product as recited in claim **588**, wherein the at least one strategy is user-defined.

591. The computer program product as recited in claim **590**, wherein the at least one strategy is capable of being provided a strategy name.

592. The computer program product as recited in claim **590**, wherein the at least one strategy is capable of being defined by a plurality of selections.

593. The computer program product as recited in claim **590**, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

594. The computer program product as recited in claim **590**, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

595. The computer program product as recited in claim **590**, wherein the at least one strategy is capable of being modified.

596. The computer program product as recited in claim **595**, wherein a range associated with the at least one strategy is capable of being modified.

597. The computer program product as recited in claim **588**, wherein the at least one strategy is a stock purchase strategy.

598. The computer program product as recited in claim **586**, wherein the decision hierarchy display includes at least one of policies, decisions, or tactics.

599. The computer program product as recited in claim **586**, wherein the decision hierarchy display includes at least two of: policies, decisions, and tactics.

600. The computer program product as recited in claim **586**, wherein the decision hierarchy display includes: policies, decisions, and tactics.

601. The computer program product as recited in claim **564**, wherein the computer code for generating includes computer code for generating the potential hybrid theme.

602. The computer program product as recited in claim **549**, wherein the computer code for generating includes computer code for generating the potential feasible hybrid theme.

603. The computer program product as recited in claim **602**, wherein the computer code for generating includes computer code for generating a plurality of the potential feasible hybrid themes.

604. The computer program product as recited in claim **602**, wherein the potential feasible hybrid theme includes a hybrid strategy.

605. The computer program product as recited in claim **604**, wherein the hybrid strategy combines a plurality of alternative strategies.

606. The computer program product as recited in claim **605**, wherein at least one of the plurality alternative strategies is pre-defined.

607. The computer program product as recited in claim **602**, wherein the potential feasible hybrid theme is associated with at least one strategy.

608. The computer program product as recited in claim **607**, wherein the at least one strategy is pre-defined.

609. The computer program product as recited in claim **607**, wherein the at least one strategy is user-defined.

610. The computer program product as recited in claim **609**, wherein the at least one strategy is capable of being provided a strategy name.

611. The computer program product as recited in claim **609**, wherein the at least one strategy is capable of being defined by a plurality of selections.

612. The computer program product as recited in claim **609**, wherein the at least one strategy is capable of being defined by an amount of stock purchase.

613. The computer program product as recited in claim **609**, wherein the at least one strategy is capable of being defined by a selection of a plurality of alternatives.

614. The computer program product as recited in claim **609**, wherein the at least one strategy is capable of being modified.

615. The computer program product as recited in claim **614**, wherein a range associated with the at least one strategy is capable of being modified.

616. The computer program product as recited in claim **607**, wherein the at least one strategy is a stock purchase strategy.

617. The computer program product as recited in claim **549**, wherein the computer code for generating includes computer code for generating the decision sensitivity display; the decision sensitivity display capable of showing at least one value associated with a first strategy and at least one value associated with a second strategy; the at least one first strategy including a pre-defined stock-related strategy and the at least one second strategy including a user-defined stock-related strategy; the second strategy capable of being: provided a strategy name by a user, defined by a selection of a plurality of alternatives, and further modified.

618. The computer program product as recited in claim **617**, wherein the computer code for generating includes computer code for generating the decision hierarchy display, the decision hierarchy display identifying at least one decision associated with the second strategy.

619. The computer program product as recited in claim **549**, wherein the application is the corporate-related application.

620. The computer program product as recited in claim **549**, wherein the application is the real estate-related application.

621. The computer program product as recited in claim **549**, wherein the application is the medical-related application.

622. The computer program product as recited in claim **549**, wherein the application is the product supply-related application.

623. The computer program product as recited in claim **549**, wherein the application is the service supply-related application.

624. The computer program product as recited in claim **549**, wherein the application is the financial-related application.

625. The computer program product as recited in claim **549**, further comprising computer code for allowing a user to modify at least one of a tornado diagram, the decision sensitivity display, the decision hierarchy display, an influence diagram, and the potential feasible hybrid theme.

626. The computer program product as recited in claim 549, wherein the decision-making is related to a business-to-business transaction.

627. The computer program product as recited in claim 617, wherein the decision sensitivity display is capable of showing the at least one value associated with the first strategy simultaneously with the at least one value associated with the second strategy.

628. The computer program product as recited in claim 549, wherein the application is the product supply-related application and the product supply-related application relates to marketing at least one product.

629. The computer program product as recited in claim 549, wherein the application is the service supply-related application and the service supply-related application relates to marketing at least one service.

630. The computer program product as recited in claim 549, wherein the application is the corporate-related application and the corporate-related application relates to marketing.

631. The computer program product as recited in claim 549, wherein the memory includes at least one database.

632. The computer program product as recited in claim 549, wherein the memory includes at least one decision-relevant database.

633. The computer program product as recited in claim 549, wherein the memory includes a plurality of databases.

634. The computer program product as recited in claim 549, wherein the memory includes a plurality of databases coupled via at least one network.

635. The computer program product as recited in claim 549, wherein the computer code for generating includes computer code for generating the decision hierarchy display, and the decision hierarchy display includes a table.

636. The computer program product as recited in claim 635, wherein each decision in the decision hierarchy display is represented by a column heading in the table.

637. The computer program product as recited in claim 636, wherein alternatives for each decision are arranged beneath the column heading.

638. The computer program product as recited in claim 549, wherein the computer code for generating includes computer code for generating the decision hierarchy display, and content of the decision hierarchy display is based on the second information.

639. The computer program product as recited in claim 549, wherein the second information includes information relating to controllables.

640. The computer program product as recited in claim 549, wherein the second information includes information relating to uncertainties.

641. The computer program product as recited in claim 561, wherein the uncertainties include independent uncertainties.

642. The computer program product as recited in claim 561, wherein the uncertainties include uncertainties dependent on decisions.

643. The computer program product as recited in claim 561, wherein the uncertainties include at least one of a product sales volume change, a margin change, a cost change, or a margin change.

644. The computer program product as recited in claim 561, wherein include at least two of a product sales volume change, a margin change, a cost change, and a margin change.

645. The computer program product as recited in claim 561, wherein include at least three of a product sales volume change, a margin change, a cost change, and a margin change.

646. The computer program product as recited in claim 549, wherein the computer code for generating includes computer code for generating the decision hierarchy display, the decision hierarchy display including information on target customers.

647. The computer program product as recited in claim 549, wherein the computer code for generating includes computer code for generating the decision hierarchy display, the decision hierarchy display including information on at least one channel.

648. The computer program product as recited in claim 549, wherein the computer code for generating includes computer code for generating the decision hierarchy display, the decision hierarchy display including information on a sales-force channel.

649. The computer program product as recited in claim 549, wherein the computer code for generating includes computer code for generating the decision hierarchy display, the decision hierarchy display including information on a service channel.

650. The computer program product as recited in claim 549, wherein the second information includes information relating to information sources.

651. The computer program product as recited in claim 549, wherein the second information includes information relating to decision alternatives.

652. The computer program product as recited in claim 549, wherein the second information includes information relating to sources of value.

653. The computer program product as recited in claim 549, wherein the computer program product utilizes a structural relationship of decisions.

654. The computer program product as recited in claim 549, wherein the computer program product utilizes input from a spreadsheet.

655. The computer program product as recited in claim 549, wherein the computer program product utilizes at least one equation relating to at least one decision.

656. The computer program product as recited in claim 549, wherein the computer program product utilizes a plurality of equations relating to a plurality of decisions.

657. The computer program product as recited in claim 549, wherein the computer program product utilizes structural relationship of decisions, values, and uncertainties.

658. The computer program product as recited in claim 549, wherein the collaborative decision platform includes the computer code for facilitating, the computer code for retrieving, the computer code for receiving, and the computer code for causing.

659. The computer program product as recited in claim 549, wherein the computer program product is capable of supporting an asynchronous decision-making process.

660. The computer program product as recited in claim 549, wherein the application utilizes policies that form boundary conditions for a decision.

661. The computer program product as recited in claim 549, wherein the application utilizes values that are important to a decision and uncertainties that potentially impact the values.

662. The computer program product as recited in claim 549, wherein the application interfaces a platform.

663. The computer program product as recited in claim 662, wherein the platform includes at least a portion of the computer code for the retrieving, the receiving, and the causing.

664. The computer program product as recited in claim 662, wherein the application is separate from the platform.

665. The computer program product as recited in claim 549, wherein the computer program product includes computer code having a plurality of objects associated with an object-oriented programming language.

666. The computer program product as recited in claim 665, wherein the facilitating the decision-making involves a policy, and the decision sensitivity display shows an impact of at least one of a plurality of variables on results of the policy.

667. The computer program product as recited in claim 665, wherein the objects include at least one object that is capable of being used to initialize a computation.

668. The computer program product as recited in claim 665, wherein the at least one of the plurality of objects is capable of providing a framing functionality.

669. The computer program product as recited in claim 665, wherein the objects include at least one object that is capable of being used to develop decision-related alternatives.

670. The computer program product as recited in claim 665, wherein the at least one of the plurality of objects is capable of providing an alternatives functionality.

671. The computer program product as recited in claim 665, wherein the objects include at least one object that is capable of being used to analyze alternatives.

672. The computer program product as recited in claim 665, wherein the at least one of the plurality of objects is capable of providing an analysis functionality.

673. The computer program product as recited in claim 665, wherein the objects include:

a first object that is capable of being used to develop decision-related alternatives,

a second object that is capable of being used to analyze the decision-related alternatives, and

a third object that is capable of being used to process the decision-related alternatives to develop a solution.

674. The computer program product as recited in claim 665, wherein the objects communicate utilizing encapsulation that enforces data abstraction.

675. The computer program product as recited in claim 665, wherein the objects are implemented utilizing class libraries.

676. The computer program product as recited in claim 675, wherein the class libraries are capable of being utilized for generating the display.

677. The computer program product as recited in claim 665, wherein the objects are implemented utilizing subclassing and inheritance to extend or modify objects by deriving additional objects from classes.

678. The computer program product as recited in claim 665, wherein the at least one display is implemented utilizing at least one dynamic web page.

679. The computer program product as recited in claim 549, further comprising computer code for providing at least one first interface that allows the user to form at least one boundary condition associated with the decision-making.

680. The computer program product as recited in claim 679, wherein the at least one first interface that allows the user to form at least one boundary condition associated with the decision-making allows the user to form a plurality of boundary conditions.

681. The computer program product as recited in claim 549, further comprising computer code for providing at least one first interface that allows the user to input at least one tactic associated with the decision-making.

682. The computer program product as recited in claim 549, further comprising computer code for providing at least one first interface that allows the user to input at least one policy associated with the decision-making.

683. The computer program product as recited in claim 549, wherein the at least one first interface allows the user to enter at least one decision relating to the decision-making.

684. The computer program product as recited in claim 682, wherein the at least one first interface allows the user to enter a plurality of decisions relating to the decision-making.

685. The computer program product as recited in claim 549, wherein the at least one first interface allows the user to enter at least one tactic relating to the decision-making.

686. The computer program product as recited in claim 549, further comprising computer code for providing at least one first interface that allows the user to form at least one boundary condition associated with the decision-making utilizing a menu.

687. The computer program product as recited in claim 686, further comprising computer code for providing at least one additional first interface that allows the user to form at least one additional boundary condition associated with the decision-making.

688. The computer program product as recited in claim 549, further comprising computer code for providing at least one first interface that allows the user to input important values associated with the decision-making.

689. The computer program product as recited in claim 688, further comprising computer code for providing at least one additional first interface that allows the user to input additional important values associated with the decision-making.

690. The computer program product as recited in claim 688, wherein the computer program product is operable such that the at least one first interface and the at least one additional first interface work in parallel in connection with at least one common display.

691. The computer program product as recited in claim 688, wherein the computer program product is operable such that the important values and the additional important values are capable of being modified.

692. The computer program product as recited in claim 549, further comprising computer code for providing at least one first interface that allows the user to form at least one boundary condition associated with the decision-making, and allows the user to provide input associated with important aspects associated with the decision-making.

693. The computer program product as recited in claim 692, wherein the computer program product is operable such that the at least one boundary condition and the important aspects are capable of being modified.

694. The computer program product as recited in claim 692, wherein the at least one first interface is an element of a framing interface.

695. The computer program product as recited in claim 692, further comprising computer code for providing at least one additional first interface a content of which is a function of input provided using the at least one first interface.

696. The computer program product as recited in claim 692, further comprising computer code for providing at least one additional first interface that allows the user to form at least one additional boundary condition associated with the decision-making, and allows the user to provide input associated with additional important aspects associated with the decision-making.

697. The computer program product as recited in claim 692, further comprising computer code for providing at least one second interface that displays a plurality of alternatives.

698. The computer program product as recited in claim 697, wherein the alternatives include alternate choices.

699. The computer program product as recited in claim 697, wherein the alternatives are displayed in a table.

700. The computer program product as recited in claim 699, wherein at least one aspect of input received from the user via the least one first interface drives a column heading in the table with the alternatives for the column heading arranged therebeneath.

701. The computer program product as recited in claim 697, further comprising computer code for confirming at least one of the alternatives.

702. The computer program product as recited in claim 697, further comprising computer code for modifying the alternatives.

703. The computer program product as recited in claim 697, further comprising computer code for providing at least one additional second interface that displays the plurality of alternatives, as modified by user input.

704. The computer program product as recited in claim 697, further comprising computer code for providing at least one additional second interface a content of which is a function of input provided using the at least one second interface.

705. The computer program product as recited in claim 697, further comprising computer code for providing at least one third interface that displays sources of value in each of the alternatives.

706. The computer program product as recited in claim 697, further comprising computer code for providing at least one third interface that allows the user to modify input information.

707. The computer program product as recited in claim 705, wherein the at least one third interface is an element of an analysis interface.

708. The computer program product as recited in claim 706, wherein the at least one third interface allows the user to modify a range of data.

709. The computer program product as recited in claim 706, further comprising computer code for providing at least one additional third interface that provides the decision sensitivity display.

710. The computer program product as recited in claim 706, further comprising computer code for providing at least one additional third interface a content of which is a function of input provided using the at least one third interface.

711. The computer program product as recited in claim 549, further comprising computer code for receiving third information that includes public information.

712. The computer program product as recited in claim 711, wherein the computer program product is operable such that the third information is received from a source separate from a receiving entity and a supplying business utilizing the collaborative decision platform.

713. The computer program product as recited in claim 711, wherein the computer program product is operable such that the third information is utilized as a function of user input.

714. The computer program product as recited in claim 712, wherein the computer program product is operable such that the third information is received from the receiving entity.

715. The computer program product as recited in claim 711, wherein the third information relates to one or more products or services.

716. The computer program product as recited in claim 715, wherein the third information relates to a value of at least one aspect of the one or more products or services.

717. The computer program product as recited in claim 716, wherein the at least one aspect of the one or more products or services includes the one or more attributes.

718. The computer program product as recited in claim 715, wherein the third information relates to one or more attributes associated with the one or more products or services.

719. The computer program product as recited in claim 715, wherein the third information relates to a value of one or more attributes associated with the one or more products or services.

720. The computer program product as recited in claim 711, wherein the computer program product is operable such that the third information measures a retrospective value creation for customers.

721. The computer program product as recited in claim 711, wherein the computer program product is operable such that the third information is utilized in association with the collaborative decision platform.

722. The computer program product as recited in claim 712, further comprising computer code for allowing the receiving entity to provide insight in association with the source.

723. The computer program product as recited in claim 712, further comprising computer code for allowing the receiving entity to provide insight in association with the source, in order to reduce risk associated with the decision-making.

724. The computer program product as recited in claim 712, further comprising computer code for allowing the receiving entity to effect a modification in association with the third information of the source.

725. The computer program product as recited in claim 712, further comprising computer code for allowing the receiving entity to provide a confirmation in association with the source.

726. The computer program product as recited in claim 712, further comprising computer code for allowing the user to provide insight in association with the source.

727. The computer program product as recited in claim 712, further comprising computer code for allowing the user to provide insight in association with the source, in order to reduce risk associated with the decision-making.

728. The computer program product as recited in claim 712, further comprising computer code for allowing the user to modify the third information of the source.

729. The computer program product as recited in claim 712, further comprising computer code for allowing the user to provide a confirmation in association with the source.

730. The computer program product as recited in claim 712, further comprising computer code for providing source information that specifies the source.

731. The computer program product as recited in claim 712, further comprising computer code for providing source information that identifies the source.

732. The computer program product as recited in claim 731, wherein the source information includes a directory.

733. The computer program product as recited in claim 731, wherein the source information includes at least one person's name.

734. The computer program product as recited in claim 549, wherein the collaborative decision platform allows input from at least three entities that impacts the at least one display.

735. The computer program product as recited in claim 549, wherein the collaborative decision platform involves collaboration of at least three entities.

736. The computer program product as recited in claim 549, wherein the collaborative decision platform involves collaboration of at least two entities via the Internet.

737. The computer program product as recited in claim 6, wherein the logic is part of one or more modules.

738. The computer program product as recited in claim 6, wherein the logic is carried out by one or more universal modules.

739. The computer program product as recited in claim 6, wherein the computer program product is operable such that the one or more of (i)-(iii) is carried out utilizing, at least in part, logic capable of accomplishing the one or more of (i)-(iii) for one or more purposes, by applying the one or more of (i)-(iii) to different products.

740. The computer program product as recited in claim 6, wherein the computer program product is operable such that the one or more of (i)-(iii) is carried out utilizing, at least in part, logic capable of accomplishing the one or more of (i)-(iii) for one or more purposes, by applying the one or more of (i)-(iii) to products associated with different businesses.

741. The computer program product as recited in claim 6, wherein the computer program product is operable such that the one or more of (i)-(iii) is carried out utilizing, at least in part, logic capable of accomplishing the one or more of (i)-(iii) for one or more purposes, by applying the one or more of (i)-(iii) to products associated with different business sectors.

742. A computer program product embodied on a tangible computer readable medium, comprising:

computer code for collaborative decision-making related to customer relationship management, the computer code for collaborative decision-making associated with an application which is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

computer code for retrieving first information from a memory;

computer code for receiving second information from at least one user interface; and

computer code for causing generation of at least one display based on the first information and the second information, the display facilitating the collaborative decision-making by including at least one of a potential feasible hybrid theme, a decision sensitivity display, or a decision hierarchy display.

743. The computer program product as recited in claim 742, wherein the computer program product is operable such that the collaborative decision-making is carried out utilizing a system that is capable of carrying out the collaborative decision-making in connection with different decisions, and the at least one user interface is adapted for receiving the second information from different people at different times and from different places, such that the at least one display is based on the second information from the different people.

744. The computer program product as recited in claim 743, wherein the application is capable of being executed using the system and the system is capable of: (i) retrieving stored information; (ii) receiving user information; and (iii) processing the stored information and the user information for generating output of the processing; where one or more of (i)-(iii) is carried out in association with, at least in part, one or more modules that is operable such that the one or more of (i)-(iii) are capable of being purposed differently.

745. The computer program product as recited in claim 744, wherein the computer program product is operable such that the one or more of (i)-(iii) are capable of being purposed differently, by applying the one or more of (i)-(iii) to different products.

746. The computer program product as recited in claim 744, wherein the computer program product is operable such that the one or more of (i)-(iii) are capable of being purposed differently, by applying the one or more of (i)-(iii) to products associated with different businesses.

747. The computer program product as recited in claim 744, wherein the computer program product is operable such that the one or more of (i)-(iii) are capable of being purposed differently, by applying the one or more of (i)-(iii) to products associated with different business sectors.

748. The computer program product as recited in claim 744, wherein the computer program product includes computer code having a plurality of objects associated with an object-oriented programming language.

749. The computer program product as recited in claim 744, wherein the at least one user interface is implemented utilizing dynamic web pages.

750. The computer program product as recited in claim 742, wherein the collaborative decision-making is facilitated utilizing platform means for supporting the collaborative decision-making in a collaborative manner.

751. The computer program product as recited in claim 742, wherein the collaborative decision-making is facilitated utilizing means for collaborative decision-making.

752. The computer program product as recited in claim 742, wherein the collaborative decision-making is facilitated utilizing a platform including module means for supporting collaborative decision-making.

753. The computer program product as recited in claim 742, wherein the collaborative decision-making is facilitated utilizing a collaborative platform including at least one module for supporting the collaborative decision-making in a manner that is, at least in part, universal when applied for different purposes.

754. The computer program product as recited in claim 742, wherein the collaborative decision-making includes collaborative decision-making that is facilitated utilizing a platform including at least one module for supporting the decision-making in a manner that is, at least in part, universal when applied differently by the platform.

755. The computer program product as recited in claim 742, wherein at least a portion of the computer code is carried out using modules capable of interfacing with different applications adapted for applying the modules differently.

756. The computer program product as recited in claim 742, wherein at least a portion of the computer code is carried out using universal modules capable of interfacing with different applications adapted for applying the universal modules differently.

757. The computer program product as recited in claim 742, wherein the computer program product includes an asynchronous framework operable such that the at least one user interface is capable of asynchronously receiving the second information from different people, such that contents of the at least one display is based on the second information from the different people.

758. The computer program product as recited in claim 742, wherein the computer program product includes an asynchronous framework operable such that the at least one user interface is capable of asynchronously receiving the second information from different people, such that contents of the at least one display is based on the second information from the different people; the asynchronous framework further operable to iteratively repeat a framing process.

759. The computer program product as recited in claim 742, wherein the computer program product includes an asynchronous framework operable such that the at least one user interface is capable of asynchronously receiving the second information from different people, such that contents of the at least one display is based on the second information from the different people; the asynchronous framework further operable such that the at least one user interface is capable of asynchronously receiving modified second information from the different people, such that the contents of the at least one display is modified based on the modified second information from the different people.

760. A system, comprising:

collaborative decision means for facilitating decision-making in association with an application which is a real estate-related application, a medical-related application, a corporate-related application, a product supply-related application, a service supply-related application, or a financial-related application;

means for retrieving first information from a memory; and

means for receiving second information via a web page constructed utilizing a hypertext markup language;

wherein the system is operable to cause generation of at least one display based on the first information and the second information, the display facilitating the decision-making by including at least one of a potential feasible hybrid theme, a decision sensitivity display, or a decision hierarchy display.

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